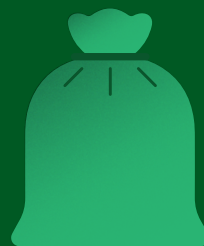
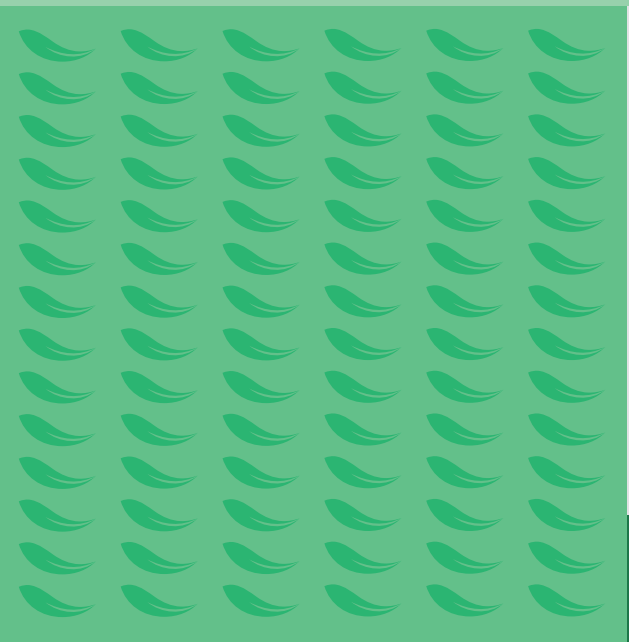


# worm

Waste in humanitarian Operations:  
Reduction and Minimisation



## Final media press kit



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# FOREWORD FROM THE COORDINATOR



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**Gyöngyi Kovács,**  
Erkkö Professor  
in Humanitarian  
Logistics, Hanken  
School of Economics



**Humanitarian operations contribute to saving lives and protecting livelihoods, and yet, have long struggled with their environmental impact. WORM addresses this by focusing on waste management in field hospitals, and by improving the livelihoods, safety and security of waste pickers.**

**As the project co-ordinator and principal investigator, I am proud to share some results of the project as well as insights from its journey.**

WORM is a somewhat different Horizon Europe project. It is different in that it addresses the humanitarian sector, considers bio-based materials, technologies and innovations, and yet, is a co-ordination and support action at heart. WORM's overall objective was to design guidelines and support actions for a circular economy in the humanitarian sector. Thus, WORM has brought together not only ten partners and six associate partners, but also their extended networks in co-ordinating efforts across humanitarian organisations, their suppliers and logistics service providers, their communities (including the waste picker community), with academics that supported this journey.

Greening humanitarian efforts is not a small feast. While focusing on waste management, WORM went beyond it, defining five key product groups for which it sought bio-based alternatives: personal protective equipment, syringes and needles, body bags, temporary water/sludge bladders, and sharps containers. These are all products used in high volumes in field hospitals. It is worth noting that medical waste can include infectious, pathological, chemical, sharp, and radioactive waste, and the treatment of such waste also needs to address not just environmental concerns but also medical ones.

Recognising the role that procurement plays as a gatekeeper to minimise the use of harmful materials, and as a gateway to introduce alternatives, WORM set up calls for these five product groups in a dedicated WORM procurement catalogue. This catalogue was

widely shared with suppliers and potential suppliers and has helped identify viable bio-based alternatives for these product groups. At the same time, the catalogue was built on principles of sustainable procurement that have resulted in a sustainable humanitarian procurement framework itself. In parallel, life cycle assessments were completed for all the five product groups and their bio-based alternatives, establishing an evidence base for their environmental impacts.

That said, the very use of bio-based alternatives is not a panacea. WORM therefore evaluated these alternatives also with regards to trade-offs between biodegradability and durability for preparedness, hygiene requirements in health and humanitarian operations, as well as the opportunity costs of raw material choices with regards to food security and deforestation; and implications of changes in materials on the livelihoods of waste pickers.

At the end of the lifecycle, waste management relies heavily on the extant infrastructure in the country of a humanitarian operation. WORM has developed a plug and play framework to establish how to integrate a humanitarian operation with this infrastructure for least environmental impact. Alternative waste treatment methods were further evaluated, all across the nitty-gritty from incinerating medical waste to the requirements for being able to move towards sterilisation and autoclaving in field hospital conditions.

The story doesn't end there. WORM also evaluated alternative business models in humanitarian waste management, and developed instructions and even large local awareness campaigns for safe and secure livelihood programmes with a waste picking component. This included engaging with formal and informal sectors in Kenya and Vietnam, picking waste in coastal areas and run workshops where waste pickers themselves could voice their concerns.

**Bringing it all together, WORM has developed countless policy briefs, guidelines, standard operational procedures (SOPs); and shared them with their relevant stakeholder groups. It is wonderful to see that the SOPs are already being adopted by field hospitals and emergency medical teams, and that the campaigns have brought together so many people. Through these, the project will continue to impact on the greening of humanitarian operations. For me, it was also a dream project to lead. To all partners and collaborators,**

THANK YOU.



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# 01 PRESS RE- LEASE

« **The humanitarian community has a particular interest in reducing its impact on the environment, as the consequences of climate change and environmental degradation are among the key drivers of humanitarian needs.** »

DG ECHO, Humanitarian Logistics Policy, 2022

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Helsinki, 15 December 2025

## WORM project's legacy towards better waste management in humanitarian operations.

The EU-funded WORM project is coming to an end in December 2025, after 2 years of work towards reducing the environmental impact of humanitarian operations. Through the design of guidelines and support actions for circular economy, WORM has reached significant results for the humanitarian sector.

### The urgent need to integrate environmental aspects in humanitarian operations

While climate change contributes ever more to humanitarian crises, the responses to these crises can themselves generate environmental impacts. In this context, waste management becomes a central component of environmentally responsible action, yet it remains complex, involving multiple organisations, local infrastructure, and private-sector actors. Humanitarian response can add pressure to existing waste systems, and waste-related challenges can arise at various stages of an operation. In line with the humanitarian logistics policy of the Directorate-General for European Civil Protection and Humanitarian Aid Operations (DG ECHO), which aims to make aid delivery more efficient, effective and environmentally friendly, WORM contributes to tackling these challenges in field hospital deployments and livelihood programmes that include waste picking.

### WORM achievements in greening the humanitarian sector

WORM contributes to the development of sustainable bio-based solutions and their applicable performance under humanitarian aid contexts, addressing the technical challenges posed by diverse environmental, social, and economic conditions.

- WORM supports significant reduction and/or minimisation of waste (e.g., plastic or fibres waste) in the environment.
- WORM conducts campaigns to raise awareness of the local communities in different contexts to address waste-related challenges.
- WORM designs concrete actions and guidelines, including policy recommendations for field hospitals & sustainable humanitarian livelihood programmes, medical waste management & sustainable procurement guidelines, local waste management business models, standard operational procedures for product use, reuse and recycling & for handover or recovery.

## ABOUT WORM

**WORM's primary mission is to reduce the environmental impact of humanitarian operations by designing guidelines and support actions for circular economy.**

WORM tackles the waste management challenges for greening the humanitarian sector within two selected settings: field hospital deployments and humanitarian livelihood programmes with a waste picking component.

### THE OBJECTIVES OF THE WORM PROJECT ARE:

- **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 maximising the socio-economic effects of humanitarian operations



WORM  
CONSORTIUM



Led by **Hanken School of Economics in Helsinki (Finland)**, **WORM brings together 16 partners from 11 countries, each bringing unique know-how.**

The consortium's strength lies in its ability to combine multidisciplinary competencies and resources from the research community, NGOs, and the business community, with a focus on sustainability, circular economy, procurement, supply chain management, humanitarian aid, public health, waste management, innovation, dissemination, and outreach.

**OUR SISTER PROJECT** focusing on the solving of solid waste management challenges in humanitarian settings



THE PROJECT  
IN A NUTSHELL

WORM IS STRUCTURED OVER THREE PHASES:

- **PHASE 1**  
Prioritisation of product groups  
January 2024 — June 2024
- **PHASE 2**  
Evaluation of bio-based alternatives and local waste management innovations  
July 2024 — December 2024
- **PHASE 3**  
Policy recommendations and local implementation  
January 2025 — December 2025

As part of its initial scoping exercise, the **WORM Project identified five priority products based on their critical role in field hospital operations and their potential for circularity within humanitarian contexts.**

**These products are:**

Body bags	Personal protective equipment	Syringes and needles
Temporary water/sludge bladders	Sharps containers	

**WORM tackles the waste management challenges for greening the humanitarian sector, within two selected settings:**

- Field hospital deployments
- Humanitarian livelihood programmes with a waste picking component



# 02 MAIN RE- SULTS

## MAIN RESULTS OF THE PROJECT

### Standard operational procedures

#### CONTEXT

**Field hospitals serve an important function in humanitarian aid but generate complex waste streams requiring safe and environmentally responsible management.**

**10-25% of field hospital waste is hazardous, and current waste management practices such as unregulated incineration and inappropriate disposal of fossil fuel-based materials release air pollution and contaminate the environment.**

The current practices of deployed field hospitals are fragmented, and these standard operation procedures (SOPs) bring together best practices from existing waste management SOPs, as well as highlighting contributions from WORM. These SOPs are based on needs-based procurement practices, highlighting efficient product and material use. They are applicable to all field hospital deployments operating in a humanitarian setting. The focus is on circular processes; extending equipment/ product lifecycles, recycling and repurposing non-contaminated materials, recovery systems, improving disposal methods of hazardous waste, and a sustainable handover process at the end of deployment.

#### **SOP FOR PRODUCT USE, REUSE, RECYCLING, REVERSE LOGISTICS AND RECOVERY IN FIELD HOSPITALS AND EMERGENCY MEDICAL TEAMS (EMTs) IN HUMANITARIAN SETTING**

WORM presents operating procedures for managing waste in field hospital contexts. Procurement guidelines and technical specifications of products and materials are used as a basis for the SOPs.

# #1

#### **SOP FOR DONATION AND HANDOVER MANAGEMENT IN EMT OR FIELD HOSPITALS**

Field hospitals and EMTs may extend their stays or hand over their operations to local partners. This SOP provides the groundwork for the established waste management procedures to continue sustainably by providing relevant information for the partner taking over operations.

#### **MAIN ACHIEVEMENTS**

The SOPs provide a framework for end-users regarding use, re-use, maintenance, and repair of products, materials, components within the field hospital context. The SOPs go beyond the deploying organisations by also focusing on the handover to local partners. As well as giving practical frameworks for operations, the data from deployments will feed into the strategic decisions made for future deployments. The handover SOPs will highlight awareness campaigns on sustainable materials, appropriate waste management, and maintenance practices of equipment. For practical use, the SOPs present audit checklists to be done on an e.g. monthly basis to ensure sustainable standards are being met.



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## MAIN RESULTS OF THE PROJECT

### Procurement and the WORM catalogue

#### CONTEXT

Procurement is one of the strongest levers for reducing environmental impacts in humanitarian operations, as it determines the materials, products and waste streams entering field hospitals and programmes. However, sustainability criteria developed in research rarely translate into procurement-ready language and humanitarian buyers often lack accessible market information on bio-based alternatives, supplier capacities and technical specifications.

To bridge this gap, WORM developed a practical approach to transform academic and technical knowledge into operational procurement guidance, supported by an open-access product catalogue.

#### PROCUREMENT FRAMEWORK AND CATALOGUE

Building on the sustainability procurement framework, the project translated environmental and bio-based material criteria into supplier- and product-level requirements usable in tenders. These were applied to five priority product groups (PPE, syringes and needles, body bags, sharps containers, and temporary bladders) resulting in procurement-ready specifications aligned with market realities and humanitarian constraints. To support uptake, WORM deployed an open-access digital catalogue bringing together product specifications, material indicators, sustainability criteria and supply-market intelligence. The catalogue provides a shared reference point for procurement officers, technical experts and partners to explore alternatives and compare options transparently.



[FIND OUT MORE  
ABOUT THIS RESULT](#)



# #2

#### MAIN ACHIEVEMENTS

The project delivered procurement guidelines that translate sustainability criteria into actionable requirements and questions for suppliers, reducing ambiguity and improving comparability across markets. The WORM catalogue was launched as a sector-facing tool that brings research insights, findings, specifications, and product data together in one environment. It has already demonstrated value for humanitarian stakeholders by enabling evidence-based product analysis and supporting alignment on terminology, criteria, and expectations.

#### WAY FORWARD

A central insight from this work is that the shift toward sustainable procurement depends on continuous learning and accessible, common information sources. Future development may focus on extending the catalogue's scope, enhancing supply-market visibility, and supporting agencies in applying sustainability criteria across a wider set of product groups. As humanitarian markets evolve, further research, collaboration, and shared tools will help operationalise the procurement framework and guide the sector toward more sustainable purchasing practices.

#### Bio-based Solutions for humanitarian applications

Catalog and procurement portal

[Start browsing](#)



## MAIN RESULTS OF THE PROJECT

### Local waste management business models

#### CONTEXT

**Deploying a field hospital is a highly complex process that requires strong coordination - from suppliers, an appreciation for internal institutional practices, to a thorough understanding of the local context with regards to national requirements, infrastructure, and availability of waste management service providers.**

**There is still a large gap between humanitarian organisations (HOs) and local waste management providers with regard to the selection of an appropriate and desired waste treatment approach.**

#### DESIGNING THE PLUG AND PLAY MODEL

The objective of the plug-and-play model has been to demonstrate a tool capable of providing humanitarian organisations with decision support for the adoption of an appropriate waste treatment methodology that considers institutional objectives and the availability of local waste management providers. The plug-and-play model guides HOs in the adoption of suitable technologies whilst establishing connections with local waste management service providers, thus mitigating costly, standardised treatments. We use a multi-criterion decision analysis methodology enabling us to evaluate and compare multiple and conflicting criteria within the waste management decision making process.



[FIND OUT MORE  
ABOUT THIS RESULT](#)



# #3

#### PLUG AND PLAY PROCESS FLOW

The plug and play model possesses two stages of data input from HOs, firstly seeking information in defining the context setting of the field hospital deployment, and secondly, a weighting of institutional objectives for said deployment. From such information, the plug and play model then provides a suggested treatment technology, information for local waste management providers, and local protocols, including policy and regulation.

#### MAIN ACHIEVEMENTS

Over the period of the project, the team has been able to successfully design a plug and play model that incorporates localised context settings for both Kenya and Vietnam, supporting HOs deploying within those regions. From validating the plug and play model, we have identified that the dominant driving objective for humanitarian organisations in the selection of waste management treatment is deployment operability. Thus, the plug and play model can be used as a starting point to understand HOs criteria and assessment of suitable technologies, service providers. It can also serve as a tool in understanding the local context to inform the HOs for further effective partnership.



©International Organization for Migration



## MAIN RESULTS OF THE PROJECT

### Causal Loop Diagrams

#### CONTEXT

Bio-based materials (BBMs), derived from renewable biological sources like starch, cellulose, or algae, are increasingly seen as sustainable alternatives to fossil-based materials (FBMs). While BBMs offer environmental benefits, their adoption presents complex trade-offs in terms of performance, land use, waste management, social equity, and food security.

This report explores these dynamics to inform responsible material transitions, also considering humanitarian needs, medical settings, and sustainable livelihoods for informal waste pickers.

#### SYSTEMS MAPPING OF BIO-BASED MATERIAL TRADE-OFFS

Using Causal Loop Diagrams (CLDs) integrated with Life Cycle Assessment (LCA) data, the study maps dynamic feedback loops between BBM adoption, consumer awareness and preference, environmental impacts, food security, policy pressures, technical performance, and social outcomes.

#### CIRCULARITY AND SOCIAL EQUITY IN MATERIAL TRANSITIONS

The report highlights how BBMs interact with waste systems and informal economies, emphasizing the need for inclusive design and infrastructure to support circularity and protect waste picker livelihoods.



[FIND OUT MORE  
ABOUT THIS RESULT](#)



#### MAIN ACHIEVEMENTS

The findings show that BBMs offer clear environmental advantages over FBMs, such as reduced greenhouse gas emissions and lower fossil resource use. However, these benefits come with trade-offs. BBMs can compete with food crops, contribute to deforestation, and may underperform in critical areas like hygiene and durability, which are especially relevant in medical and humanitarian contexts. While additives may support enhanced technical performance, they may also lead to challenges during end-of-life. Socially, the adoption of BBMs can disrupt informal recycling economies, potentially harming waste pickers' livelihoods if materials are non-recyclable or poorly integrated into existing waste systems. To address these challenges, the report proposes several mitigation strategies: prioritizing non-land-based feedstocks like 2nd or 3rd generation biomass, supporting regenerative agriculture, improving BBM technical performance with innovation, enhancing waste infrastructure, and designing BBMs for recyclability or compostability. It also recommends aligning procurement practices with life cycle thinking. Overall, the report emphasizes that while BBMs hold promise, their adoption in humanitarian operations must be carefully managed to ensure both environmental sustainability and social equity.



@Getty Images

# #4

## MAIN RESULTS OF THE PROJECT

### Policy framework for sustainable livelihoods programmes

#### CONTEXT

Waste pickers—estimated at 15–20 million globally—play a vital role in reducing landfill waste and advancing circular economy goals. Yet they remain among the most marginalized workers, facing health hazards, income insecurity, and social stigma. We propose a framework to transform waste picking from a survival strategy into a dignified, sustainable livelihood pathway.

#### INCLUSIVE POLICY FRAMEWORK FOR INFORMAL WASTE PICKERS

Grounded in the Sustainable Livelihoods Framework (SLF) and informed by field research in Kenya and Vietnam, stakeholder workshops, interviews with waste pickers, and the academic and grey literature, the framework introduces eight guiding principles: dignity and safety, formal recognition, economic inclusion, education and capacity building, gender equity, environmental stewardship, local adaptation, and transparency. These principles aim to reduce health risks, break poverty cycles, and promote social legitimacy while embedding waste pickers into circular economy systems.



[FIND OUT MORE  
ABOUT THIS RESULT](#)



#### STEP-BY-STEP APPROACH

To operationalize these principles, WORM proposes a ten-step roadmap: define goals and scope, identify stakeholders, collect data, map waste value chains, design programmes, build capacity and provide training, deliver infrastructure and equipment, advocate for formalization, engage markets and develop value chains, and monitor, evaluate, and adapt. Integration with local and innovative business models—such as cooperatives, micro-enterprises, and public-private partnerships—strengthens economic resilience and environmental impact.

#### MAIN ACHIEVEMENTS

Key achievements include the development of a comprehensive policy framework for humanitarian programmes supporting waste pickers; site visits and workshops in Kenya and Vietnam to ensure local relevance and inclusivity; co-design strategies with waste pickers to foster ownership and sustainability; and linking livelihoods programmes to circular economy business models to promote systemic change. We provide actionable guidance for humanitarian actors, policymakers, and private sector partners to create dignified, rights-based livelihood opportunities that advance social inclusion, economic resilience, and environmental sustainability.



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# #5



## EVENTS ORGANISED BY WORM

As part of the dialogue process of the WORM project, events were organised to gather information and validate the results with the humanitarian and hospital communities.

A TOTAL OF

**3 WEBINARS** and **10 WORKSHOPS** were organised, bringing together over **400 PARTICIPANTS**



### WEBINARS



**Innovation friendly procurement**  
25 June 2024



**Strengthening medical waste management systems**  
17 September 2024



**Waste management in humanitarian field hospitals**  
5 June 2025

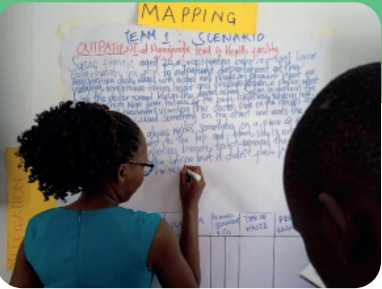
### WORKSHOPS

**WORM workshop on field hospitals, procurement and sustainability at HNPW2024**  
8 May 2024



**Promoting Sustainability through Humanitarian Procurement:**  
Development of a sustainability criteria framework  
25 June 2024

**Validation and cocreation workshop on medical waste management: an overview of existing disinfection methods**  
26-27 September 2024



**Medical waste management online validation workshop**  
3 October 2024

**WORM Symposium in Vietnam**  
8 October 2024



**Waste management adopted by emergency medical teams and field hospitals in emergency responses**  
5 March 2025

### WORKSHOPS

**Waste management in humanitarian operations: Bio-based solutions and raising awareness challenge at HNPW2025**  
24 March 2025

**Validation workshop to review the assumptions regarding trade-offs in bio-based materials**  
9 September 2025



**The dangers of incinerating mixed medical waste**  
16 September 2025



## FINAL EVENT

**On 4 November 2025, the WORM project held its final event, titled "Field-based solutions for managing medical waste" celebrating two years of collaboration, innovation, and impact.**

It was organised by the Hanken School of Economics, the coordinator, and took place in Helsinki, Finland, and online.

The event brought together nearly **90 researchers**, practitioners, and policy experts to explore safe and sustainable approaches to medical waste management.



©Hanken School of Economics

From bio-based materials to standard operating procedures for field hospitals, **12 speakers** showcased WORM key achievements and practical solutions for the humanitarian sector.



# OUR LOCAL AWARENESS CAMPAIGNS IN KENYA AND VIETNAM

The **WORM project's** local awareness campaigns in **Kenya** and **Vietnam** were more than isolated events; they served as catalysts for behavioural change. Each campaign used tailored strategies to address **medical** and **humanitarian waste management challenges**, focusing on community participation, education, and the promotion of sustainable alternatives.

Through creative expression and community-driven activities, both countries showed how locally grounded communication approaches can transform complex waste management issues into relatable, actionable messages for the public.

## CAMPAIGNS IN KENYA



In **Kisumu County**, **WORM partner Pamela Steele Associates (PSA)** used a **community-based communication model that put creativity and participation at the centre of its awareness-raising efforts. The campaign moved beyond traditional training approaches, aiming instead to inspire long-term changes in attitudes within healthcare facilities and the wider community.**

### STRATEGIC APPROACH

The campaign used art-based education—murals, drama, poetry, and visual storytelling—to communicate the dangers of incineration and promote safe medical waste segregation and disposal practices. Working in partnership with local healthcare facilities, youth groups, county leaders, and environmental offices helped ensure credibility, local ownership, and long-term continuity. A virtual workshop expanded the campaign's reach beyond in-person activities, engaging stakeholders and supporting broader policy influence.

### IMPACT

- **Murals installed in healthcare facilities** now serve as permanent behaviour cues, daily visual reminders that reinforce proper waste management.
- **Youth-led** performances during World Environment Day 2025 reached more than 500 community members, helping translate technical waste-management concepts into relatable, everyday experiences.
- **The campaign** also sparked conversations about sustainable waste alternatives, influencing discussions among healthcare workers, facility managers, and local policymakers.

### KEY ACHIEVEMENTS

- **More than 500 community members** and healthcare workers were directly reached through performances, workshops, and mural installations.
- **Three hospitals in Kisumu County** now feature educational murals illustrating proper waste segregation, the dangers of incineration, and sustainable alternatives. These murals act as daily visual reminders and have contributed to improved segregation practices.
- **Over 1,000 brochures, pamphlets, and posters** were distributed in healthcare and community facilities, as well as during workshops and World Environment Day events.
- **Twenty youth artists and performers** were engaged, turning environmental education into creative advocacy and fostering strong local ownership.
- **A multi-stakeholder workshop** brought together experts from NEMA, KEMRI, and the Kisumu County Health Department to discuss alternatives to incineration, supporting potential adoption of safer practices and strengthening cross-sector collaboration.

## CAMPAIGNS IN VIETNAM



In Vietnam, the **Vietnam Red Cross Society (VNRC)** designed **awareness activities that combined education, environmental action, and social inclusion. The campaign sought to strengthen environmental consciousness among youth and highlight the essential role of informal waste collectors in the waste management chain.**

### STRATEGIC APPROACH

- Conducted the **"Raising Community Awareness on Waste Management"** initiative across two schools, using competitions, clean-ups, and waste exchange programs.
- Organised the **"Together with Waste Collectors – Connecting Communities, Protecting the Environment"** event in Khanh Hoa Province, merging awareness with coastal restoration.
- **Integrated climate adaptation actions**, such as mangrove planting, into community awareness efforts.



@Vietnam Red Cross Society

### IMPACT

- **Built** youth leadership in environmental protection through experiential learning and creative expression.
- **Improved** relationships between communities and informal waste collectors, enhancing local cooperation for cleaner environments.
- **Contributed** to ecosystem restoration and community resilience through mangrove planting and marine waste collection.
- **Strengthened** the role of VNRC as a catalyst for sustainable and inclusive environmental action.

### KEY ACHIEVEMENTS

- **Over 900 students** and teachers participated in school-based environmental activities.
- **300 participants**, including volunteers and informal waste collectors, joined community cleanup and mangrove planting events.
- **One hectare** of coastal mangrove forest was established, supporting biodiversity and climate adaptation.
- **Two major** awareness events were successfully organised in collaboration with the Khanh Hoa Provincial Red Cross and local authorities.
- **National and local** media coverage amplified the campaign's reach, highlighting the social and environmental value of inclusive waste management.

### SHARED INSIGHTS

Both campaigns confirmed that effective waste management begins with people. By leveraging creativity, education, and partnerships, WORM's awareness efforts in Kenya and Vietnam achieved tangible outcomes and lasting behavioural shifts.



IMPACT BEYOND THE PROJECT

WORM has brought together the humanitarian community, and especially the medical humanitarian community in assessing their environmental impact and considering bio-based alternative solutions.

Here are some highlights of WORM’s impact:

RESEARCH IMPACT

WORM provides evidence for decision-making related to bio-based alternatives, and to alternative waste treatment methods, both upstream and downstream the humanitarian supply chain. Trade-offs and tensions between different aims are illustrated through causal loop diagrams for the introduction of bio-based materials and their opportunity costs with regards to e.g. food security, deforestation, as well as the durability and feasibility of material use.

UNDERSTANDING ENVIRONMENTAL IMPACT

WORM contributes to a significant reduction of waste littered in the environment. WORM takes a holistic systems approach to waste management. WORM identifies pathways for enhancing circularity practices within waste management and procurement decisions. Importantly, WORM reduces the environmental impact also by local awareness campaigns.

FINDING ALTERNATIVES

WORM has found alternatives to both materials, and to waste treatment methods. The bio-based alternatives of WORM have not only been identified as a concerted effort with a vast array of humanitarian organisations to begin with, but also, incorporated into the WORM catalogue and



platform as to seek viable solutions and suppliers. Thereby WORM contributes to the identification of sustainable biobased solutions of applicable performance under humanitarian aid contexts, addressing the technical challenges posed by diverse environmental, social, and economic conditions.

WORM has identified potential alternatives to incineration as a waste treatment method in field hospitals, and where incineration is needed, methods to control for its environmental impact. Thereby WORM contributes to an improved way to address waste management and waste-related challenges in humanitarian contexts.

STANDARDISING SOLUTIONS

WORM has developed standard operating procedures (SOPs) for field hospitals, especially for waste management, and handover protocols. These were completed using a cumulative approach, in essence collecting and synchronising SOPs across various emergency medical teams. They have already informed the EMT verification of the Finnish Red Cross field hospitals, and are set to become part of the World Health Organisation’s training materials. Thus their impact has already been realised, and further impact on EMTs and field hospitals is part of this standardisation process.

BRAND ELEMENTS AND PROMOTIONAL MATERIALS

Printed materials

LEAFLET



ROLL UP



FLYER



FINAL BROCHURE



Videos

PROJECT VIDEO



INTERVIEWS





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Waste in humanitarian Operations:  
Reduction and Minimisation

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version of our  
press kit

