



WREC GREEN PROCUREMENT & WASTE MANAGEMENT GLOBAL INFORMATION SESSION

NOVEMBER 2025

**Global Logistics
Cluster**

Where are you joining us from today?



Where are you joining us from today?



48 responses

Agenda

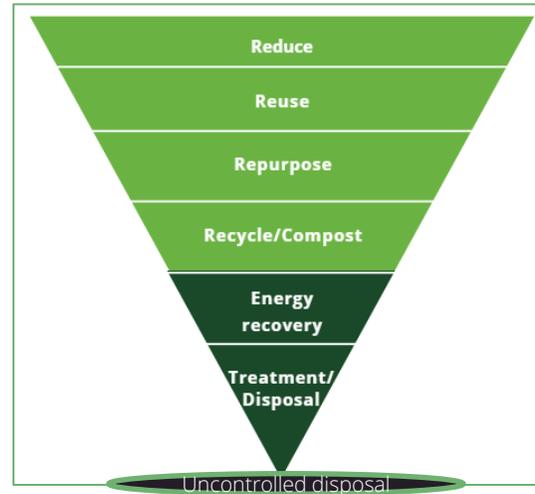
1	Welcome and introduction	10 mins
2	Waste estimation and procurement overview	10 mins
3	How are partners doing it? <ul style="list-style-type: none">• Palladium• WFP Venezuela• PIRAC/French Red Cross	30 mins
4	Q&A and discussion	30 mins
5	Wrap-up / Next steps	5 mins

Waste estimation and procurement overview

**Global Logistics
Cluster**

Waste estimation and procurement overview

Why is it important to measure our waste?



To define the **TYPE AND QUANTITY OF WASTE ITEMS** and the potential environmental impact

To think on **ALTERNATIVE OPTIONS** to manage waste as a resource and **avoid waste landfilling**.

To develop your organization's **SWM SYSTEM**: plan **activities** and **budget** to manage your waste responsibly, free storing spaces, increase efficiency and generate revenues.

Waste estimation and procurement overview

Why is it important to measure our waste?



Set strategies for **WASTE REDUCTION** and diverting waste from landfill.



Identify needs for **ADVOCACY** for more resources to manage waste properly.



Comply with the organization and donors' **ENVIRONMENTAL POLICIES; RECOVER RESOURCES**, and support the **LOCAL ECONOMY**.

Methods and tools to measure waste:

1) WASTE MONITORING SYSTEM

- Dashboard of overall monitored data. E.g. WH, office, vehicle workshop, distribution point, etc. E.G. waste/month totals and by streams.

2) WASTE CHARACTERIZATION

- [WREC Waste or Material Characterization Exercise Guidance](#). Further details: [How to Measure your Waste Workshop_NFR and Presentation](#)

3) WASTE ESTIMATION (PROCUREMENT PLAN)

- Packaging: [Waste packaging calculator \(JI\)](#) and [PIRAC/French Red Cross calculator](#)

4) WASTE ESTIMATION (METRICS)

- Fleet waste: per vehicle/year or vehicle/km
- Office waste: per worker or per m2
- Warehouse waste: per m2 or relief item

See more in the next file:
[WREC Waste Measurement Decision Tree](#)

How are partners doing it?

**Global Logistics
Cluster**

UPDATES FROM CLUSTERS' REPRESENTATIVES

Inter-cluster discussion on Waste management during emergencies



Palladium

Mark Quinn - Supply Chain Manager, HSOT | Humanitarian Stabilisation Operations Team (HSOT) | UK aid-funded programme implemented



PIRAC/French Red Cross

Natalia Corro - Disaster Risk Management (DRM) & Climate Change (CC) Technical Coordinator



WFP Venezuela

Juan Carlos Sanmartin - Logistics Associate



Mathieu Grenade - Environmental and Decarbonization Lead, French Red Cross.



Ernesto Castellanos – Environmental Sustainability Specialist, Admin Unit

WREC Global Info Session: Estimating waste through procurement

Purpose

- Demonstrate compliance with UK packaging laws
- To give form and measure to the previously nebulous issue of downstream packaging waste
- Inform planning for waste management downstream
- Set a baseline for future packaging reduction measures
- Inform early discussion in a sudden onset response on waste management as a quantified issue

Strategic Element – Quantification of waste sits within the suite of measures designed with the intention of reducing the impact of plastic waste in a GIK emergency response.

- Reduce (Create packaging specification and remove/substitute plastic)
- Recyclable (Plastic RIC 1-6)
- Quantify (Collate data on type and amount of plastic packaging per commodity batch)
- Identify (Clear and visible RIC codes)
- Recycled (Develop tools and contacts for recycling facilities)

Process & Methodology

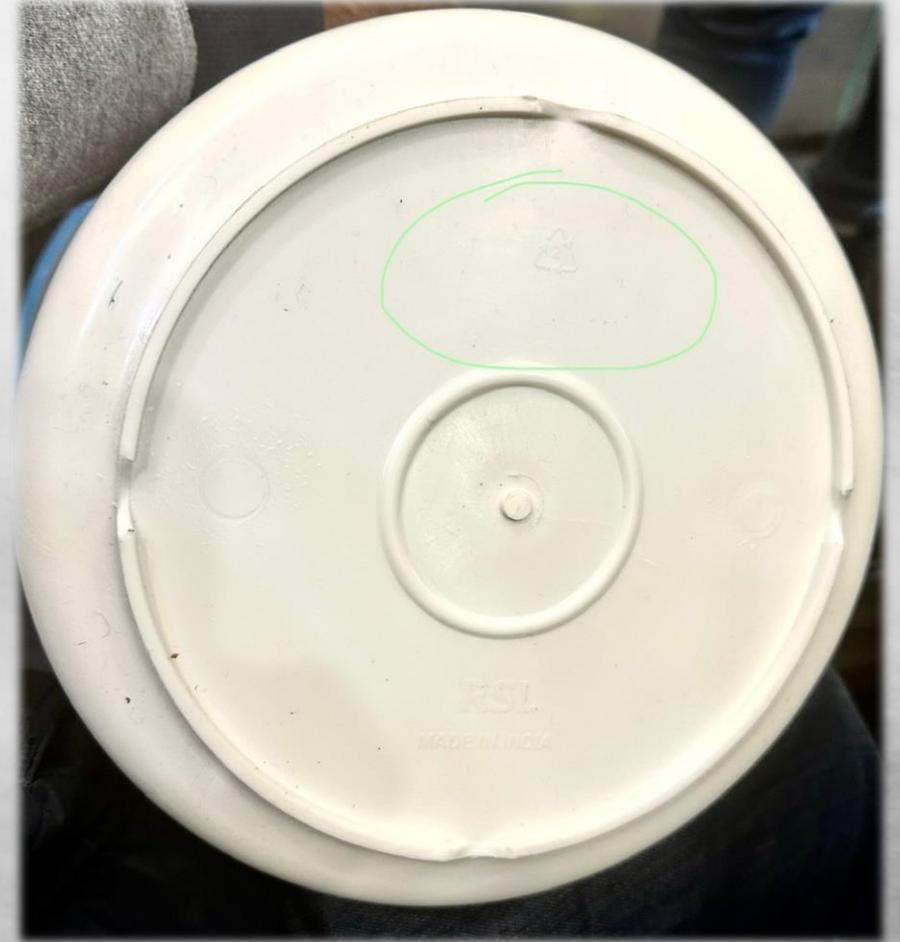
Item	PO Ref	Qty (Item)	Type of Plastic	Packaging Unit	Qty (Packaging Unit)	Unit Weight (Gram)	Total Weight (KG)	Country Imported to	Date of entry	Notes	Contains >30% Recycled Content Y/N
Water Filtration Cube			PP Strapping	Carton		2		UK	23/09/2023		
Water Filtration Cube			LDPE Stretch Film	Pallet		195		UK	23/09/2023	30% Recycled	Y
Water Filtration Cube			PP Strapping	Carton		2		UK	23/09/2023		
Water Filtration Cube			LDPE Stretch Film	Pallet		195		UK	23/09/2023	30% Recycled	Y
Coverage Kit			LDPE - Plastic Bag	Bale		120		UK	01/07/2023		
Coverage Kit			PP - Yellow Strap	Bale		76		UK	01/07/2023		
Coverage Kit			PP - Packing Tape	Bale		6		UK	01/07/2023		
Coverage Kit			LDPE - Stretch Wrap	Pallet		320		UK	01/07/2023		
Coverage Kit			PP - Yellow Strap	Pallet		105		UK	01/07/2023		
Coverage Kit			LDPE - Plastic Bag	Bale		120		UK	01/07/2023		
Coverage Kit			PP - Yellow Strap	Bale		76		UK	01/07/2023		
Coverage Kit			PP - Packing Tape	Bale		6		UK	01/07/2023		
Coverage Kit			LDPE - Stretch Wrap	Pallet		320		UK	01/07/2023		
Coverage Kit			PP - Yellow Strap	Pallet		105		UK	01/07/2023		
Solar Lantern			Stretch film with ROHS	Pallet		800			01/08/2023		
Water Filtration Cube			PP Strapping	Carton		2		UAE	23/09/2023		
Water Filtration Cube			LDPE Stretch Film	Pallet		195		UAE	23/09/2023	30% Recycled	Y
Water Filtration Cube			PP Strapping	Carton		2		UAE	23/09/2023		
Water Filtration Cube			LDPE Stretch Film	Pallet		195		UAE	23/09/2023	30% Recycled	Y
Coverage Kit			LDPE - Plastic Bag	Bale		120		UK	23/11/2023		
Coverage Kit			PP - Yellow Strap	Bale		80		UK	23/11/2023		
Coverage Kit			LDPE - Stretch Wrap	Pallet		310		UK	23/11/2023		

Special Conditions:

“For all shipments, the supplier shall provide information on product packaging necessary to satisfy both Palladium’s compliance obligations under UK regulation on Plastic Packaging Tax and also internal data collection requirements. This includes, but is not limited to, reporting requirements set out in the product specification. Where so requested, the supplier will assist Palladium and its agents to gather and verify relevant information to report to the UK tax authorities.”

Item – Packing Unit	PO Ref	Quantity of packing unit	Type of Plastic	Plastic Weight per Unit	Total Weight
Coverage Kit UK - Unit			e.g. PP banding		
Coverage Kit UK – Bale 1			e.g. PP banding		
Coverage Kit UK – Bale 2			e.g. LDPE Bag		
Coverage Kit UK – Pallet 1			e.g. LDPE wrap		
Coverage Kit UK – Pallet 2			e.g. PP banding		

Process & Methodology



Challenges

- Ensuring the supplied data is usable and relevant.
 - Reliance on downstream actors who have a variety of priorities and understanding of waste management issues.
 - Downstream waste management in sudden onset response still struggles to get the necessary bandwidth.
 - Competent authorities responsible for managing recycling in a response country may not be in a position to assist.
 - Contamination of different waste types
-
- Hurricane Melissa – First response in which plastic packaging data was made available to response teams.



Learnings

Dealing with a small number of large global suppliers is relatively straight forward

- **Active management required to ensure data quality. Ensure evidence files are save centrally.**
- **Plastic format, as well as type, is important when designing a recycling solution. E.G. PET strap.**
- **Avoid flexible wording. E.G. “Where possible”, “If available” etc.**
- **CRI Commodities require a different approach**
- **If starting again would implement at first opportunity and also include a requirement for emissions factor (product and packaging)**
- **Consider all plastic materials wholistically and consider hamronisation. E.G. PP stretch wrap**
- **Designing out plastic packaging would eliminate this requirement in whole or in part.**

**THANK
YOU**

The image features the words "THANK YOU" in a bold, teal, sans-serif font, centered on a white background. The text is arranged in two lines: "THANK" on top and "YOU" below it. The background is decorated with several overlapping, light blue circles of varying sizes, creating a subtle, abstract pattern.

UPDATES FROM CLUSTERS' REPRESENTATIVES

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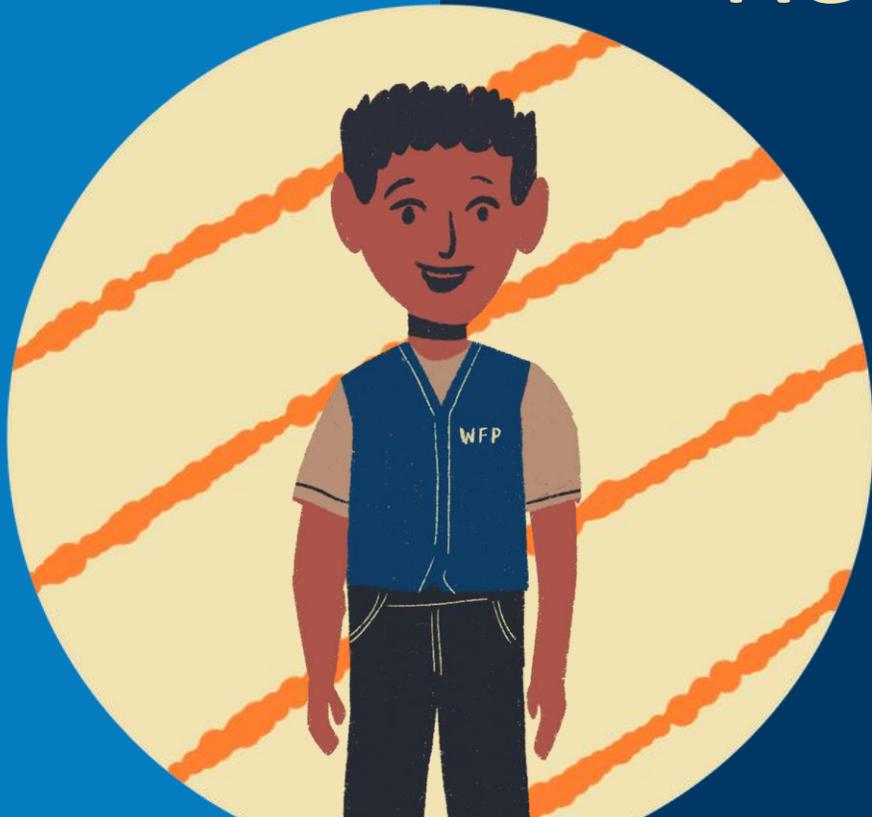
Ernesto Castellanos – Environmental Sustainability Specialist, Admin Unit



Naciones Unidas
**Programa
Mundial de
Alimentos**

Reverse Logistics System

WFP - VENEZUELA



VENEZUELA | Reverse Logistics System



VECO Operations 2021-2023



VENEZUELA | Reverse Logistics System

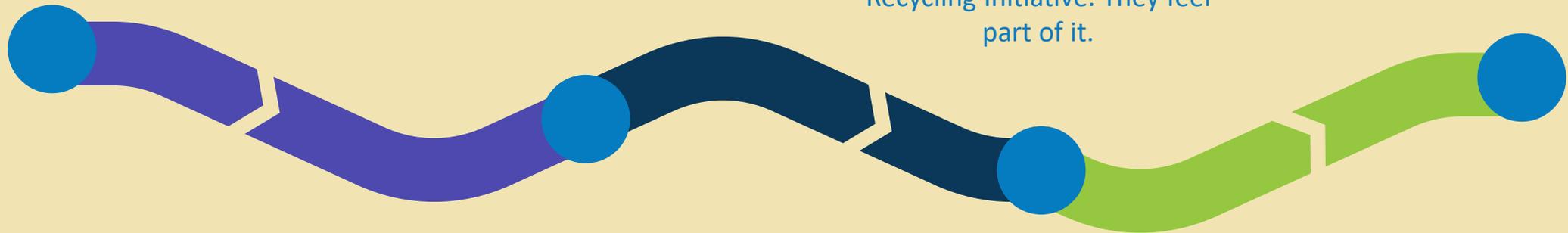


EOI + Draft RFQ +
Competitive Bidding Process
+ Contract Awarded.

We include a clause in our
transport contracts to move
recycle materials at no cost:

All our awarded transport
suppliers participate in our
Recycling Initiative. They feel
part of it.

We shared the plan with our
colleagues in the field.



*“WFP may request support to return pallets or
recyclable materials on trucks that are going back
empty to the HUB”.*



VENEZUELA | Reverse Logistics System



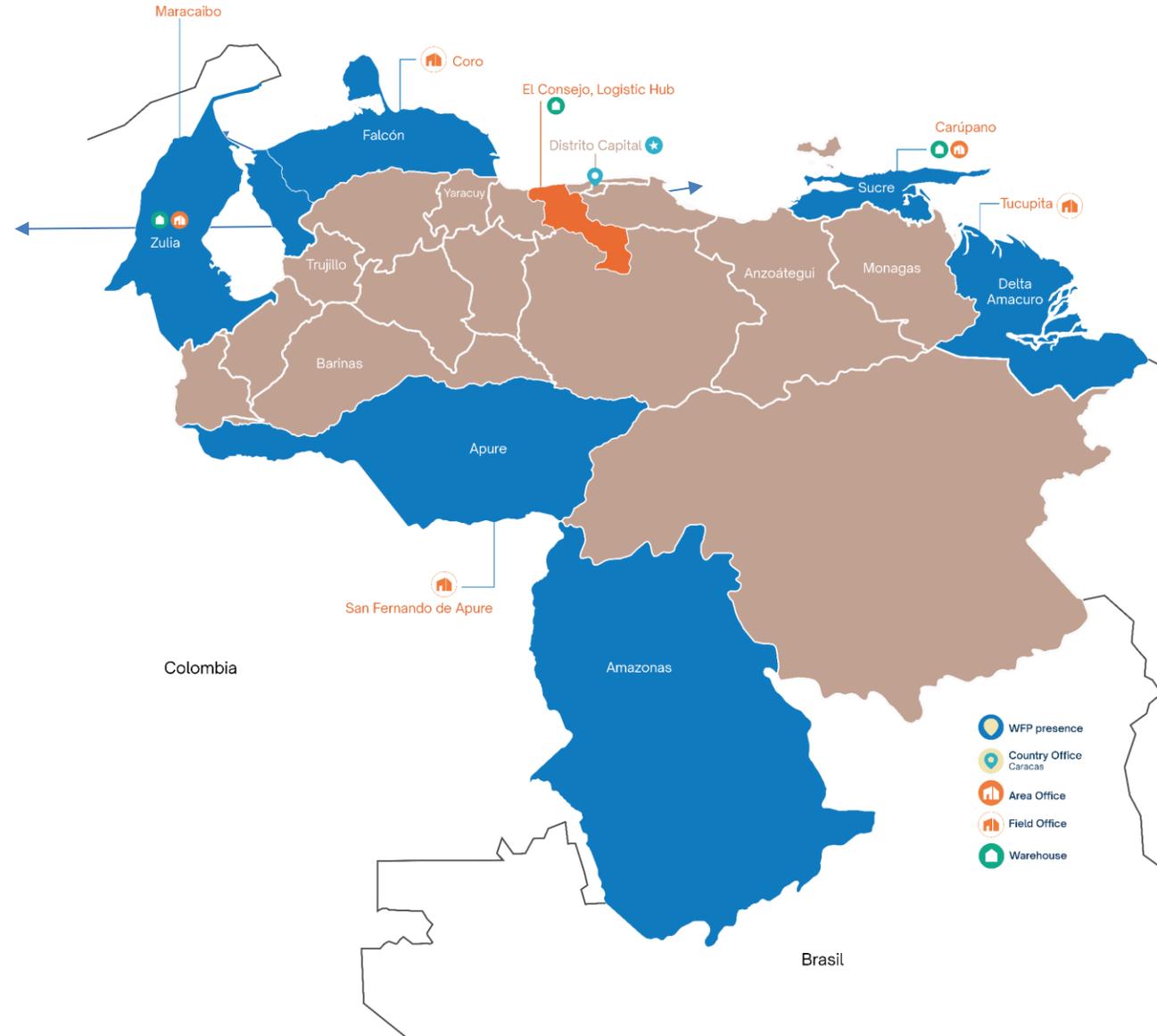
What have we achieved?

0 USD invested.

73 MT solid waste material recycled.

60 MT CO2 reduced to the environment, approximately.

~12,000.00 USD generated from the sale of recycled material.



VENEZUELA | Reverse Logistics System



Packaging characterisation, primary, secondary and tertiary

Type of packaging	Weight per unit (grams)
Lentils Packaging	6g
D'VITA Sweet Potato Packaging	5g
Maizalito Sweet Potato Packaging	5g
PMA Sweet Potato Packaging	6g
Emerald Salt Packaging 1kg	4g
Emerald Salt Packaging 500g	3g
PMA Salt Packaging	2g
Oil Packaging	9g
Flour Packaging	6g
Micaela Flour Packaging 1kg	5g
Micaela Flour Packaging 1kg Fiorentina Pasta Packaging Capri Pasta Packaging Araurigua Rice Packaging Secondary Packaging Kits (16 units/1 Kg each) of Pasta Fiorentina	4g
Packaging of Pasta Capri	6g
Packaging of Araurigua Rice	5g
Secondary Packaging of Kits (16 units/1 Kg each)	22g
Tertiary Packaging of 4 kits/ 16 units/1 Kg each)	55g
Packaging of Cartons Oils (15 units)	35g
Secondary Packaging of Salt (50 units/0. 500 Kg)	30g



VENEZUELA | Reverse Logistics System



WFP SUSTAINABILITY

WFP VECO Waste Prediction - Green Supply Chain

Year:

Month:

Field Office:

Commodities Na..:

Outbound delivery detail

Date	Field Office	Programa	Outbound delivery	Commodities Names	Quantity	Secondary packaging	Kg Immediate waste	Post Distribution waste	Primary packaging	Factor1
9/22/2025	EDP Maracaibo	CBP Zulia La Guajira	92684371	Kit in bag	274	Plastic	0	25.208	Plastic	1
				Salt-Iodized	274	Plastic	0.16	0.548	Plastic	50
				Vejetable oil sun..	274	Cardboard	6.54	7.124	Plastic	15
9/30/2025	EDP Maracaibo	CBP Zulia La Guajira	92684372	Kit in bag	644	Plastic	0	59.248	Plastic	1
				Salt-Iodized	644	Plastic	0.39	1.288	Plastic	50
				Vejetable oil sun..	644	Cardboard	15.37	16.744	Plastic	15

Total general

Immediate waste

Secondary packaging / Commodities Nam..	Cardboard	Plastic
Vejetable oil ..	21.91	
Kit in bag		0.55
Salt-Iodized		

Post distribucion waste

Waste prediction

Valor	Kg Immediate waste	Post Distribution w..
0	22.46	110.16



VENEZUELA | Reverse Logistics System



Emergency Response



- ✓ 104 kg of carboard.
- ✓ 10 kg of plastic.
- ✓ 106 kg CO2 Reduction.



Naciones Unidas
Programa
Mundial de
Alimentos

¡THANKS!



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Regional study of waste management capacities

WREC Global Info Session:
Estimating waste through
procurement Abstract –
13/11/2025



CONTENTS

- PIRAC/French RC - Technical department
- Study objectives
- Steps to integrate waste management into operations
- Waste and recycling **mapping** and country profiles
- Questions and answers

**Ready 360° / 3 Oceans result
no. 4**
Develop technical studies and
research

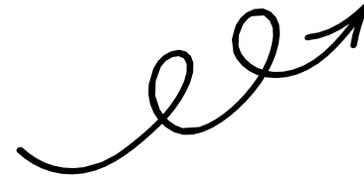
The objectives



Emergency operations waste management

Study the management and treatment capacities for waste generated by emergency operations in the America-Caribbean zone

- * **Identify** existing waste management systems and **assess** their maturity and efficiency.
- * **Develop operational recommendations** for integrating waste disposal into emergency response planning and scaling.
- * **Share knowledge and best practices** with other regions and humanitarian organizations



Study scope

15 territories were considered for the study



● Initial Ready 360° scope ● Additional territories added to scope

Scope: Americas and Caribbean



Log Initiative

Methodology

Methodology

1. **Characterization of waste** generated during emergency operations
2. **Map existing players and facilities**
3. **Identify current regulations** on cross-border waste transport
4. **Draft operational guidelines** to include waste management in logistics operations
5. **Capitalize** by disseminating as widely as possible



Saint Lucia



Dominica



Study partners



Steering Committee: OECS, CDEMA, IFRC, Logistics Cluster (WREC), Joint initiative

Technical Committee: IFRC, Logistics Cluster (WREC), Joint initiative, USAID BHA



Scope : Americas and Caribbean

Methodology

Data collection - Existing facilities

1 questionnaire for operators: the type of waste treated and the nature and conditions of the services offered.

1 questionnaire for waste management authorities: background and necessary regulatory information.

Various players: Chamber of Commerce, Red Cross, National Society, CDEMA focal point.

Mailing requesting information -> 103 recipients but low return rate: only **6 replies + 6 interviews**



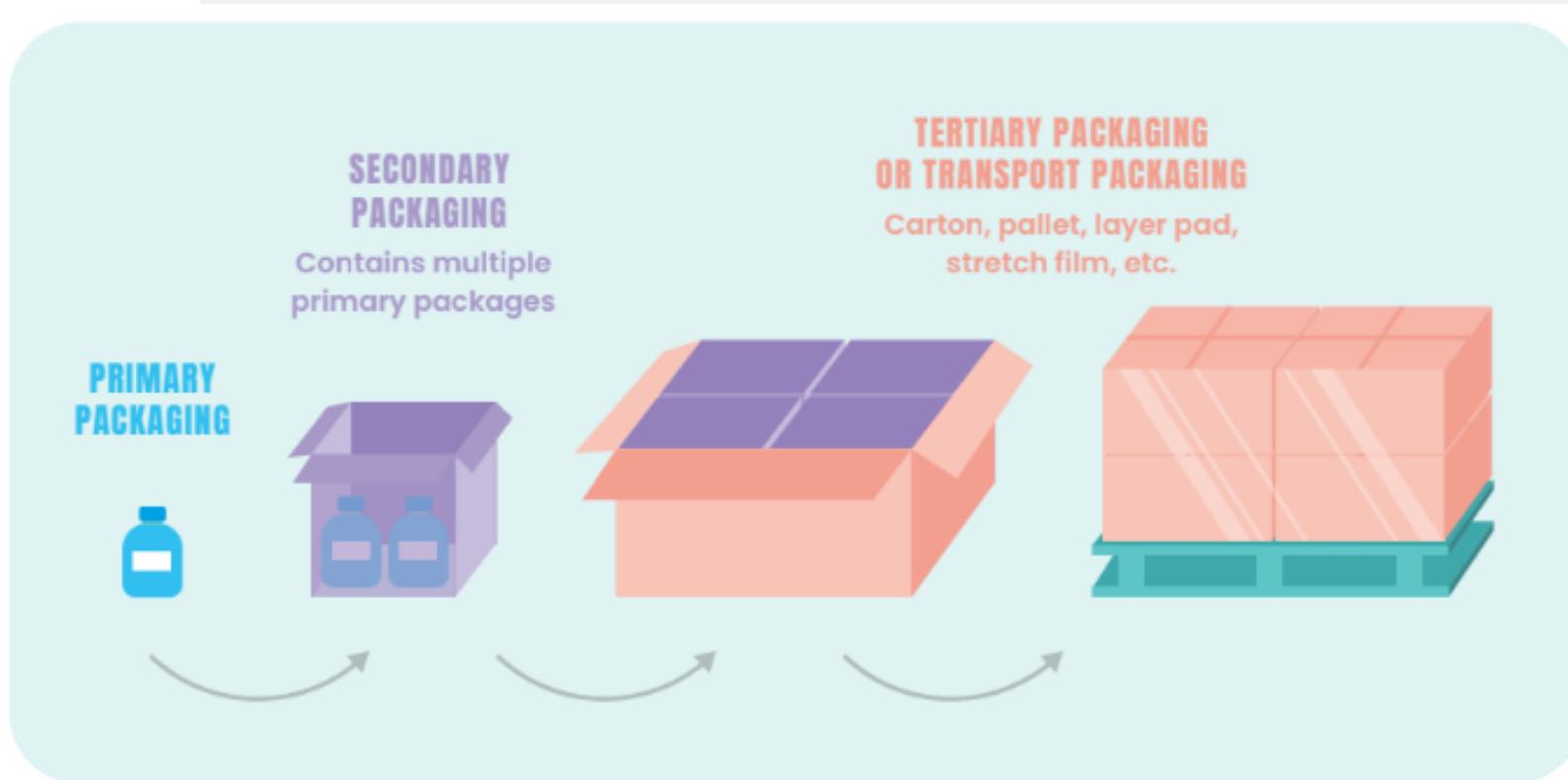
Main results / operational recommendations

Key findings

Waste estimation tool (IFRC family kits)

2010-2024: **37** PIRAC emergency operations

11 tons of potential waste = 2.2 x 20-foot containers



* **700 kg** of

paper/cardboard

* **1.6 tons** of plastics

* **8.8 tons** of pallets

Waste estimation tool

INSTRUCTION FOR USE Empty all green cells. Fill column C with the number of items for each item. Fill column D with the number of items by pallet. You can add an item line 21 with and fill values in green cells + fill values in green cells of data references

	TERTIARY PACKAGING				SECONDARY UPSTREAM PACKAGING					TOTAL
	Pallet	Film LDP	Cardboard protect	Strapping PP	Plastic HDPE/LDPE	Plastic	Cardboard	Paper	Strapping PP	
Weight ((kg)	1174,42	9,66	19,25	1,39	28,56	47,59	82,21	30,00	89,11	*****
Volume (m3)	7,216	0,042	0,091	0,006	0,122	0,205	1,809	0,041	0,392	9,922
Quantity	49									

	PACKAGING MATERIAL WITHOUT PALLETS					TOTAL
	Film LDP	Plastic PP	Plastic HDPE/LDPE	Cardboard protect	Paper	
Weight (kg)	9,66	138,09	28,56	101,46	30,00	*****
Volume (m3)	0,04	0,60	0,12	1,90	0,04	2,71

	PACKAGING MATERIAL FAMILY		
	Plastic	Cardboard and	Pallet
Weight (kg)	176,30	131,46	1174,42
Volume (m3)	0,77	1,94	7,22

ITEM	ENTER DATA		DATA REFERENCES							TERTIARY PACKAGING					SECONDARY UPSTREAM PACKAGING								TOTAL WEIGHT (kg)			
	Item quantity	Item/pallet	Item weight /pallet (kg)	Pallet quantity	Secondary packaging	Load height (m)	Plastic strapping length (cm)	Pallet (kg)	Pallet (m3)	plastic film (kg)	plastic film (m3)	cardboard (kg)	cardboard (m3)	strapping (kg)	strapping (m3)	Plastic HDPE/LDPE (kg)	Plastic HDPE/LDPE (m3)	Plastic PP (kg)	Plastic PP (m3)	Cardboard (kg)	Cardboard (m3)	Paper (kg)		Paper (m3)	Strapping (kg)	Strapping (m3)
TARPAULINS woven plastic, 4 x 6 m, white/white.	1000	100	420,0	10,0	200,0	1,46	14,43	250,0	1,382	2,3	0,010			0,9	0,004	28,6	0,122	0,0	0,000	0,0	0,000	0,0	0,000	89,1	0,392	4571,1
SHELTER TOOL KIT tools and fixings	500	48	528,0	11,0	500,0	1,66		275,0	1,521	3,0	0,013					0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	5771,1
CLEANING KIT brooms, buckets, bags, protection	500	48	288,0	11,0	500,0	0,96		239,3	1,655	1,3	0,006	12,7	0,060			0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	3311,4
KITCHEN SET family of 5 persons, type "A"	500	72	360,0	7,0	500,0	1,47	9,76	190,5	1,053	1,6	0,007	6,5	0,031			0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	2691,7
JERRYCAN collapsible, 10L, food grade LDPE.	1325	400	56,0	4,0	30,0	0,60	11,72	0,7	0,726	0,2	0,001			0,4	0,002	0,0	0,000	0,0	0,000	24,8	0,545	0,0	0,000	0,0	0,000	211,1
BUCKET plastic, 14L with clip cover and 50mm	1000	250	312,5	4,0	50,0	1,42		108,9	0,602	0,9	0,004					0,0	0,000	0,0	0,000	57,4	1,263	30,0	0,041	0,0	0,000	1447,2
BLANKET woven, 80% COTTON,		300	204,0	0,0	0,0	0,00	7,46	0,0	0,000	0,0	0,000			0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	1,1
MOSQUITO NET (LLIN, rectangular large 160 x 180 x	1000	500	222,0	2,0	20,0	1,02	3,68	50,0	0,276	0,3	0,001			0,1	0,000	0,0	0,000	47,6	0,205	0,0	0,000	0,0	0,000	0,0	0,000	541,1
HYGIENIC PARCEL (for 5 persons / 1 month)		52	421,2	0,0	0,0	0,00		0,0	0,000	0,0	0,000					0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	1,1
Additional item			0,0	0,0	0,0	0,00		0,0	0,000	0,0	0,000			0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	0,0	0,000	1,1
TOTAL				49	1800	8,6	*****	1174,4	7,216	9,7	0,042	19,2	0,091	1,4	0,006	28,6	0,122	47,6	0,205	82,2	1,809	30,0	0,041	89,1	0,392	*****
				Pallet quantity	Secondary packaging	Load height (m)	Plastic strapping length (cm)	Pallet (kg)	Pallet (m3)	Film (kg)	Film (m3)	Cardboard Corner (kg)	Cardboard Corner (m3)	Strapping (kg)	Strapping (m3)	Plastic HDPE/LDPE (kg)	Plastic HDPE/LDPE (m3)	Plastic PP (kg)	Plastic PP (m3)	Cardboard (kg)	Cardboard (m3)	Paper (kg)	Paper (m3)	Strapping (kg)	Strapping (m3)	Total shipment weight (kg)

*Possibility to add an item manually

Main results / operational recommendations

Key findings

Mapping of facilities in the study area: 16 facilities

Operating procedure for each intervention zone

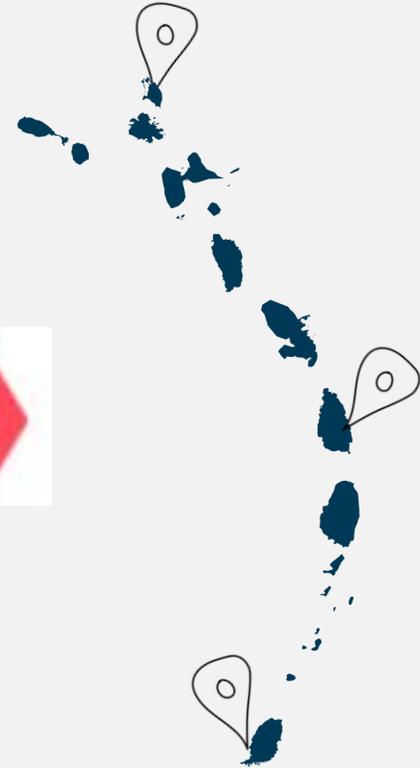
INFORM

ESTIMATE THE
VOLUME OF WASTE

PROVIDE RETURN
PACKAGING

CONTACT PARTNERS

11 country sheets



Key findings

Main results / operational recommendations

Anticipating additional costs

Haiti 2021 - Estimated cost of waste management = **6,500 euros** or around **2.5%** of the total cost of the operation for 295 kg of waste



Reusable covers

150 € / Unit



Big-bag

10 to 25 € / Unit

Some recycling fees:

Cardboard/paper: €0.10 to €0.20/kg

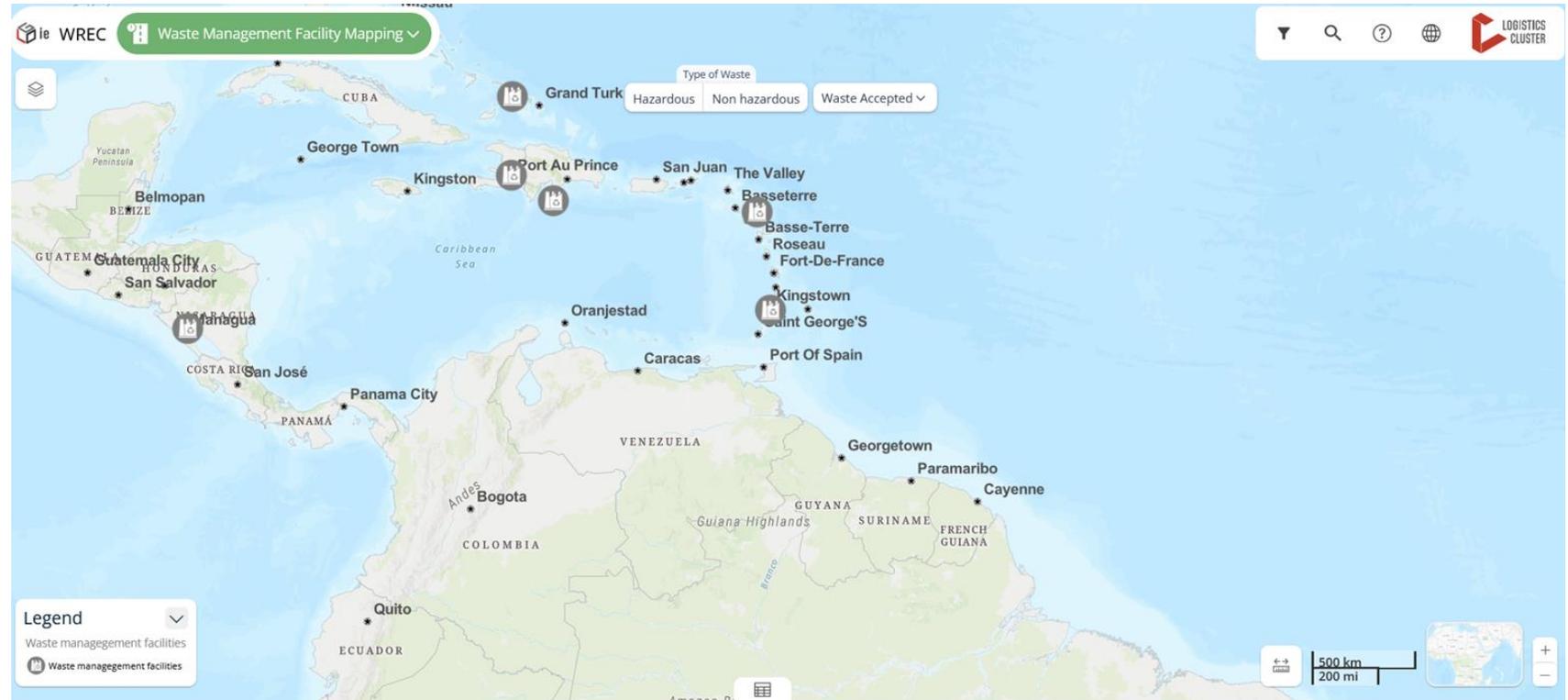
Recyclable plastics: €0.10 to €0.30/kg

BREAKDOWN

	INVESTMENT / STORAGE	COLLECTION / TRANSPORT	WASTE TREATMENT	TOTAL
Investment in reusable pallet covers	€5 700			€5 700
Reusable woven bag (Bulk Bag volume 1 m ³)	€75			€75
Maritime transport (pallets)		€360		€360
Additional maritime transport cost		€265		€265
Waste treatment			€75	€75
	€5 775	€625	€75	€6 475

Map of waste management operators

16 facilities were identified (Non-French territories)



WREC

Most of them handle **PET*** / **HDPE**** = 87% of the operators

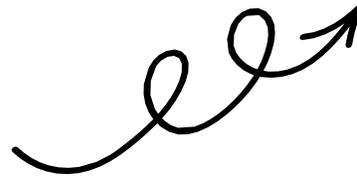
25% of the operators handle Cardboard/Paper

19% of the operators handle Polypropylene (PP) and LDPE***

*PET = Polyethylene

**HDPE = High Density Polyethylene

***LDPE = Low Density Polyethylene



Issues and points of attention

PIRAC / Humanitarian actor

- Have the necessary resources
- Partnerships or dialogues with local operators
- Raising awareness and training in good waste management practices
- Rethink emergency response planning

Barriers / Challenges

Territories/Countries

- Landfill and no plastic/paperboard recycling unit
 - Each territory has its own level of maturity
- Lack of profitability and adequate infrastructure
 - Binding regulations on waste exports

Learns

- Strong interest among humanitarian actors in addressing this issue
- Generalization of the approach: mapping, estimation tool, procedures
- Acceptable costs enabling response to challenges in the short term
- Methodology developed but not yet tested
- Requires investment and resources to implement waste management in its planning
- Study results were shared but no mechanism was put in place to obtain feedback from organizations that could use the proposed method
- Further investigation would be needed to explore the feasibility of easing/facilitating waste regulations in emergency

Thank you for your attention.



Q&A

Q&A and Discussion

**Global Logistics
Cluster**

Wrap-up/ Next steps

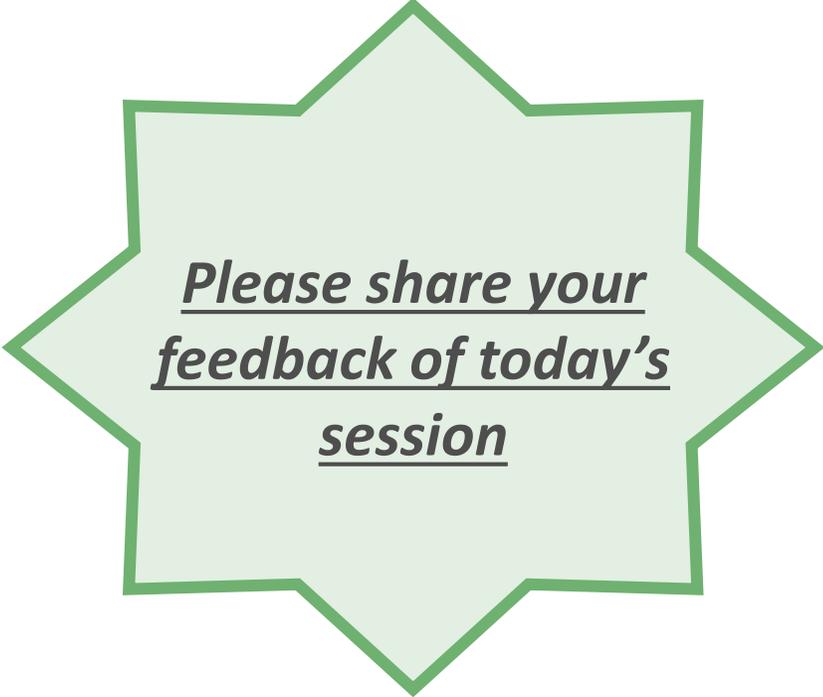
Global Logistics
Cluster

Upcoming events:

INFORMATION SESSION: AUTOMATING CARBON ACCOUNTING

19 November from 02:00-15.30h CET

([Registration link](#))



*Please share your
feedback of today's
session*



Thank you!

For more information on the project or on Waste Management, please contact: global.WREC@wfp.org

**Global Logistics
Cluster**

