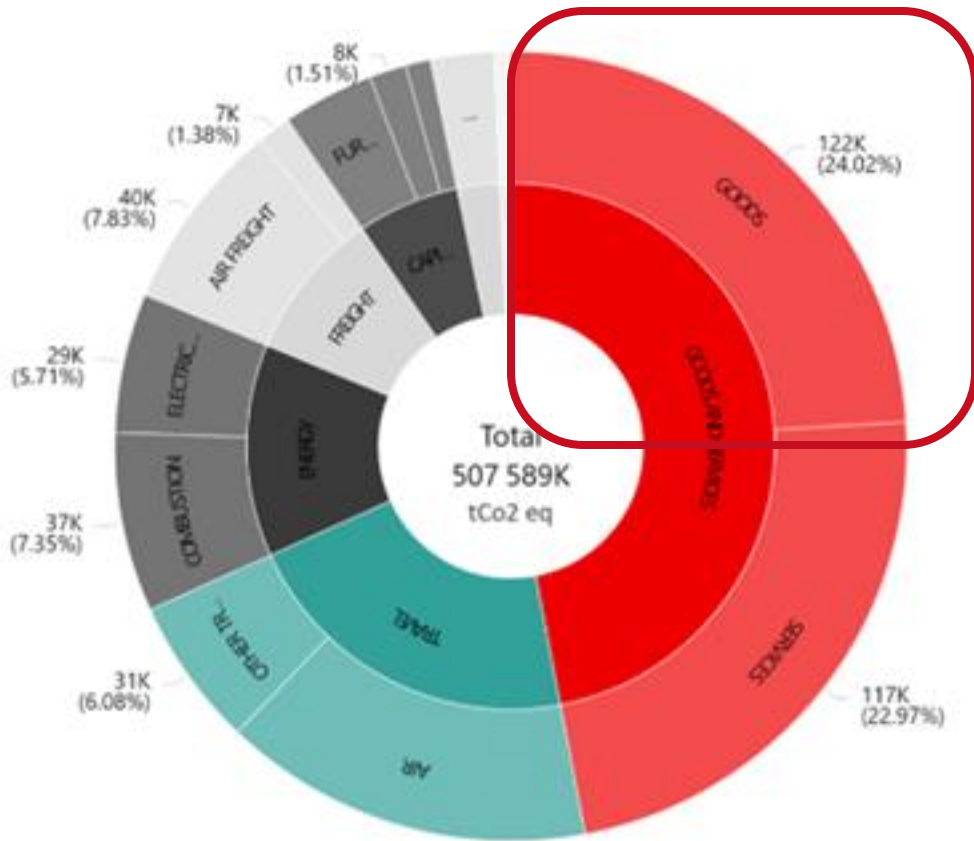


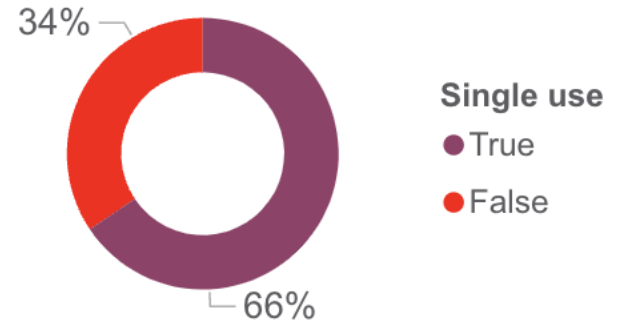
“RETHINKING SINGLE USE MEDICAL ITEMS”

MSF EFFORTS TO REDUCE PLASTICS IN HEALTHCARE

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Outbound procurement share (% CO2 per year) par Single use



Share of single use items on the total of medical items in categories Medical Equipment and Renewable Supplies, (5 OCs, between 2019-2023)

MSF Movement Baseline Footprint (2019)

Background – MSF's Environmental roadmaps

TRANSPORT

- 01 Air travel reduction
- 02 Sustainable traveling practices
- 03 Home office commuting
- 04 Fleet size, composition & movement
- 05 Sea/road freight vs air freight
- 06 Greener transport service providers

GOODS AND SERVICES

- 07 Environmental **procurement criteria**
- 08 Regional purchasing
- 09 **Packaging**

MEDICAL PRACTICES

- 10 **Reduce overuse** of medical supplies
- 11 Review of protocols
- 12 **Alternatives** protocols and **medical material**

BUILDINGS AND ENERGY

- 13 Sustainable constructions
- 14 Thermal efficiency of buildings
- 15 Energy consumption
- 16 Renewable energy
- 17 Sustainable heat production items
- 18 Reduce high global warming potential gas

WASTE & ECOSYSTEMS

- 19 Environmental impact analysis
- 20 Waste management plans
- 21 Avoid and reduce waste
- 22 Re-use and recycle
- 23 Waste treatment alternatives
- 24 Water preservation
- 25 Land and biodiversity

DIGITAL & TRANSVERSAL

- 26 Data storage and transfer
- 27 Digital equipment
- 28 Good office practices

“Rethinking Single Use” Project’s : Overall Objectives



Reduce the environmental impact of single-use medical items and their packaging



By orienting procurement towards more sustainable products and improving rational use

Phase I - Specific Objectives (2024-2025)



Create a framework used to **analyse the single-use** items based on their environmental impact



Prioritise the single-use items and their packaging,
Identify key products



Suggest possible **Mitigation Measures**, and explore their **feasibility**, considering **clinical** implications

Phase I : Deliverables (2024-2025)



A framework



Key priority items in terms of environmental impacts & mitigation efforts



Concrete mitigation measures

Item's Prioritisation Exercise

1. Data Collection

Total product weight	Weight of plastic	Aluminium	Bromobutyl elastomer	Cardboard	Cellulose fiber	Cotton	Lithium Battery
Metal	Nitrile	Natural latex	Paper	Wood	Share of high impact plastic (PVC)	Share of medium impact plastic (polyurethane, polyester, nylon)	Share of low impact plastic (PET, polystyrene, polyethylene, polypropylene)

Sources:

- Info from manufacturers
- Suppliers Tech. Data Sheets
- Samples (weight)
- Literature
- Existing Databases

2. Impact Analysis

Impact per item			
Production	Transport	Storage	End of life

Main impacts:

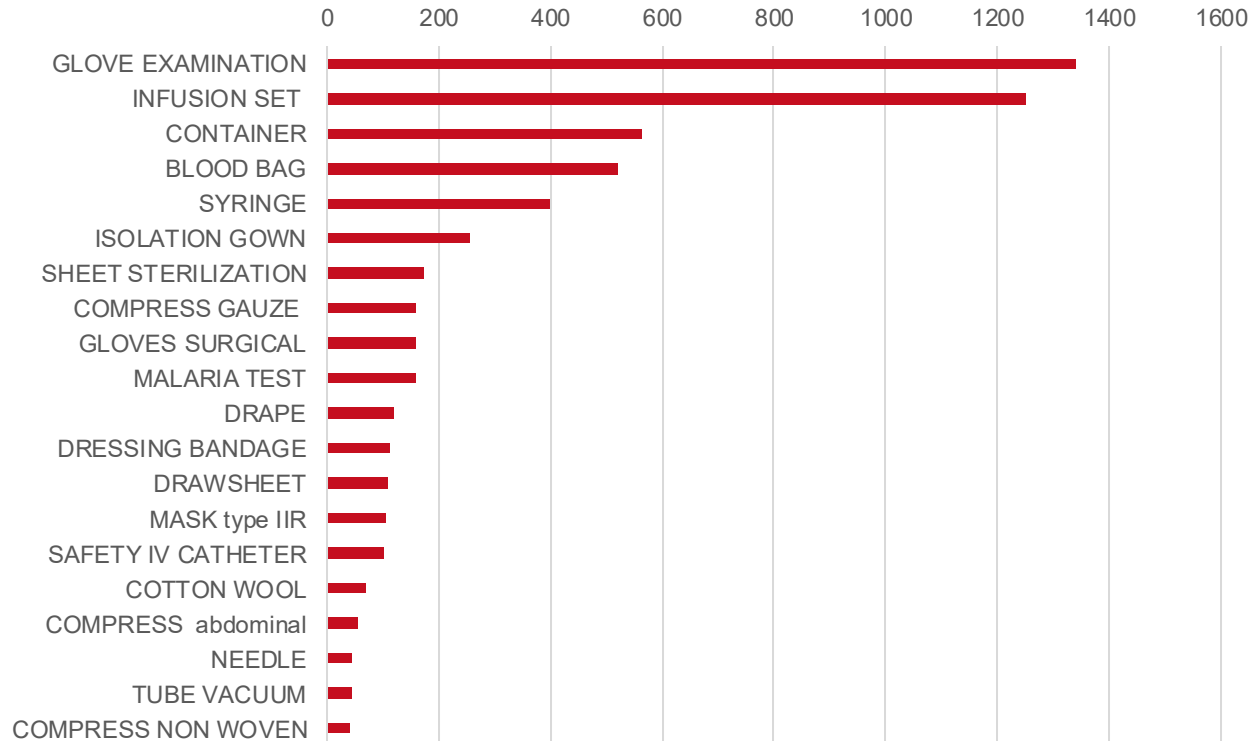
- Climate Change
- Human Health
- Plastic Pollution

3. Ranking

		Contribution from
Total impact per item (point)	Total impact per procurement quantity	packaging to the total impact per item
▼	▼	▼

Item's Ranking - Results

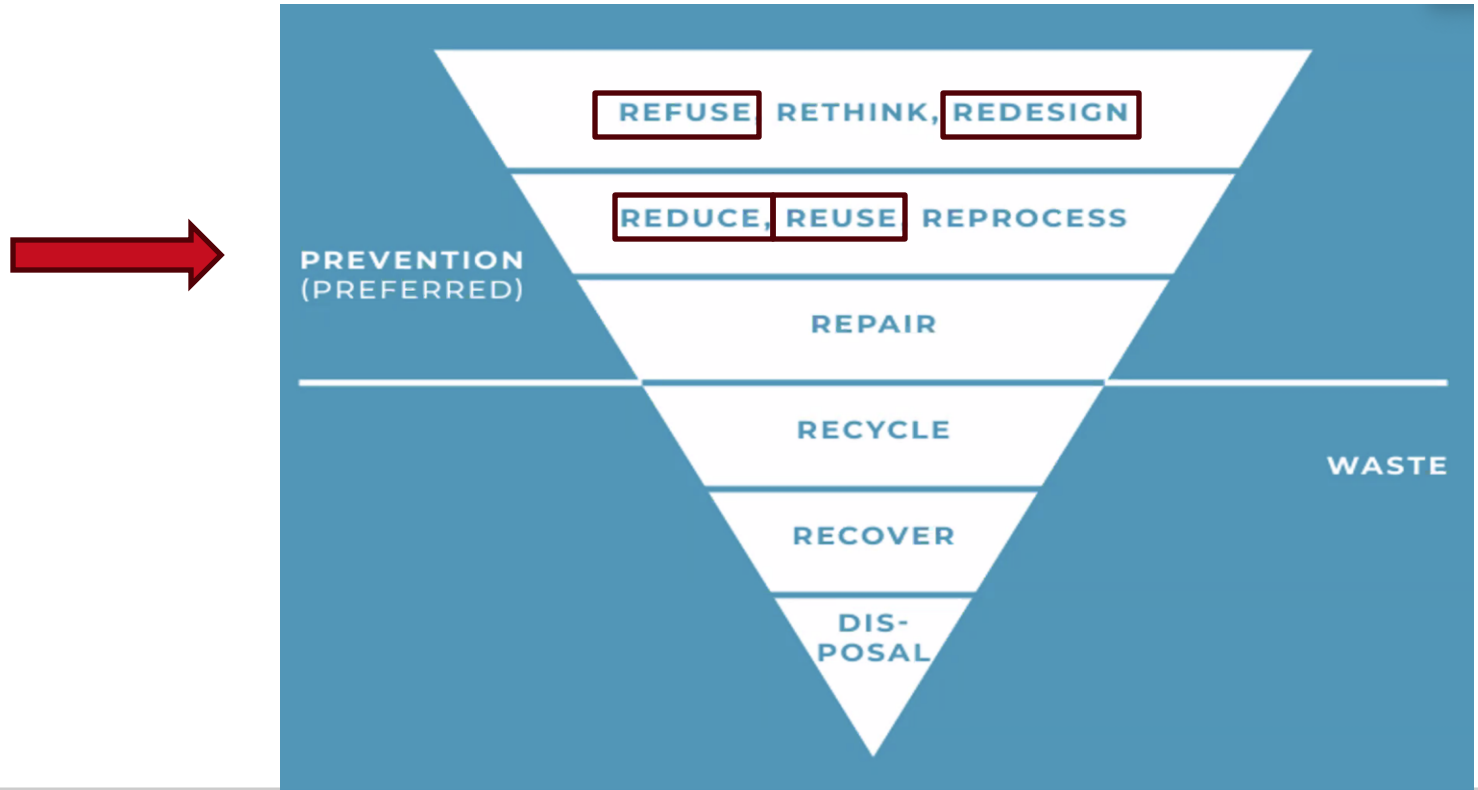
ENVIRONMENTAL IMPACT SCORE (ALL OC'S, 5Y, 2019 - 2023)
TOP 20



Approx.

- 40% of total CO₂eq emissions associated with single-use medical items
- 4% of MSF global emissions

The Search for Mitigation Measures



What is best for the Environment ? => The Waste Hierarchy

Mitigation Measures

“Refuse”

Integrate environmental considerations within **product selection process** to prioritize sustainable alternatives.

“Reduce”

(Rationalise consumption)

Promote responsible use through **healthcare workers’ behavior change**, in compliance with medical guidelines.

“Reuse”

Implement **reusable alternatives** whenever possible, which generate less waste and have a lower environmental impact.

“Redesign”

Collaborate with other global actors to engage with manufacturers and **advocate for stronger regulations and industry standards to promote sustainability in the medical products market.**

Reduce & Reuse : Main findings and challenges

Reduce :

- **Major opportunity for Medical Practices**
- Behavior Change

Reuse :

- **Already available in Catalogue : OT Gown, Caps, Isolation Gown, ...**
- **Field Limitations** : availability of industrial laundry & Sterilization Capacities
- **Reusable alternatives:** are sometimes missing from the Market (e.g. EU MDR 2017)

Refuse & Redesign : Main findings and challenges

Refuse :

- **Data Transparency:** information from suppliers lacks visibility into product components.

Redesign :

- **Influence on Major Suppliers:** Mitigation efforts are challenging to implement with large suppliers where MSF holds limited influence.
- **Sustainability in WHO Prequalification:** The WHO prequalification process currently does not include sustainability criteria, missing a key opportunity to set environmental standards.

End of Phase I : Results (03/2025)

Main priorities identified :

Products :

- Disproportionate impact of **PVC**

Practices :

- Rational use of **PPE** (primarily gloves)
- Rational use of **Devices for Injection**

Rethinking Single Use Medical Items

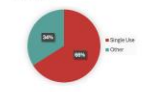


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Background

In line with MSF's commitment to reduce its carbon footprint, this project examined the environmental impact of single-use medical items (SUMI), which account for 68% of all medical items procured by 5 Operational Centres, between 2019 and 2023.



Share of single-use items on the total of medical items procured (total expenses, 2019-2023)

Objective

The project's overall objective is to reduce SUMI's environmental impact through a methodology that identifies the most impactful ones, then suggests practical mitigation measures to be implemented.

Methodology

The list of single-use medical items available in the MSF catalogue was narrowed down from over 4000 to 160, based on procurement data and expenses. Then, inspired by a Life Cycle Assessment (LCA) approach, an analytical framework was developed to evaluate these items across their life cycle stages, including production, transport, storage and end-of-life. Data was collected from manufacturers, product samples, and MSF's European Supply Centres to assess each item's impact through three indicators: Climate Change, Human Health, and Plastic Pollution.



Environmental Impact of Single Use Medical Items (SUMI) compared to other medical items (2019-2023)



Environmental Impact of Single Use Medical Items (SUMI) compared to other medical items (2019-2023)

"If the Planet is Sick, People will be Sick."
 Christos Christou, MSF International President

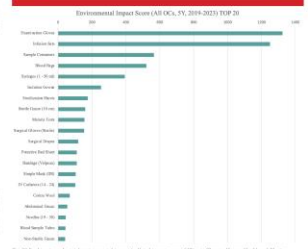


Fig. 20 Ranking score by total environmental impact (total impact score of Climate Change, Human Health and Plastic Pollution, expressed in grams CO₂e per MSF Operational Centre between 2019 and 2023)

Results

The project identified the 20 most impactful single-use medical items used in MSF operations, primarily examination gloves, infusion sets, blood bags, syringes and isolation gowns. Potential mitigation measures were subsequently identified and categorized using the "Waste Hierarchy": "refuse," "redesign," "reduce," and "reuse." In practice, the findings measures such as developing sustainable technical specifications, identifying more sustainable alternatives, promoting rational use and implement reusable alternatives, and advocating for changes in the medical device industry.

Conclusions

These results have practical implications for MSF. The initial steps towards mitigating the impact of medical activities have been identified and organized into three main work streams. In terms of procurement, integrate environmental expertise into the product selection process. Regarding medical activities, promote sustainable practices, such as implementing reusable alternatives and ensuring the rational use of items. Lastly, the project's findings and recommendations will be used to influence the broader healthcare industry beyond MSF. Overall, the project advocates for incorporating sustainability considerations into MSF's operations at all levels.

Potential Benefits

For MSF operations, suggested mitigation measures promises a reduction in carbon emissions, improved waste management, and potential cost savings. For patients and staff, they will reduce health risks associated with climate change and environmental pollution, reduce risks of healthcare associated infection, reduce pain and discomfort.

TRANSFORMATIONAL INVESTMENT CAPACITY

"Wear With Care" Campaign
 Concrete mitigation measures to reduce our consumption of SUMI have already been piloted! The "Wear With Care" (WWC) campaign, through a behaviour change approach, was successfully implemented in Lussembourg in 2023. It identified the key barriers to the proper use of examination gloves. After 9 months into the campaign, examination glove consumption per patient consultation decreased by 40%. Similar efforts are now being considered in Sierra Leone, Afghanistan, Niger, and Kenya. Who's next? If you are interested, contact your IPC relevant, and we will provide support.



Photo credit: Elizabeth Olyett. Photo of a person wearing a mask and gloves: Elizabeth Olyett.

For any questions, contact: david.renard@msfswiss.org



TRANSFORMATIONAL INVESTMENT CAPACITY

Phase II : Specific Objectives (from 04/2025)

Objectives:

1. **Mainstream the environmental expertise** into the product selection and procurement processes.
2. **Strengthen internal awareness** and **support the implementation** of key mitigation measures identified aiming at rationalising the consumption.

(Q4)

Feed external Advocacy to leverage the potential of **collaboration** with other like-minded organizations towards the improvement of products and packaging.

Phase II: Deliverables



Tools and guidance to integrate sustainability considerations into selection process of single use items



Handbook of sustainable medical practices



Advocacy package

Sustainability develops more durable solutions through:

- reducing long-term costs
- preserving resources
- minimizing waste
- optimizing resource use
- building resilience against supply chain disruptions

Eventually allowing savings to be redirected towards more services, extending care delivery to more patients.

