



GREEN RESPONSE GREEN LOGISTICS GUIDE

Tips to deliver humanitarian assistance in a more environmentally sustainable way



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Acknowledgments

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The maturity level of the humanitarian sector with regards to environmental practices is expected to increase over the coming years. In light of this, the authors would welcome sharing of additional good practices and practical examples to include in future revised versions. Please also report any inaccuracies or broken hyperlinks. Contact: juan.galvez@ifrc.org

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GREEN LOGISTICS ESSENTIALS

Introduction

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Procurement

Purchase items that last longer, are repairable locally, and have potential for reuse. This will reduce waste.

Include environmental considerations in your tender and contract documents to show your suppliers that sustainability is important to your organisation. Have a dialogue on what suppliers propose to reduce environmental and carbon footprint e.g. ask them if they have an environmental policy, or to demonstrate how they manage waste.

Include environmental considerations in specifications of items when procuring. ICRC (with the support of IFRC) has developed guidance on sustainable specifications for the main items we purchase, covering things like reduced packaging, low impact materials, reusability or recyclability, overall carbon footprint etc.

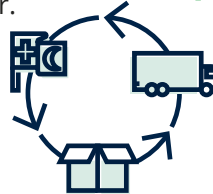


Supply Chain Planning

Accept donations of goods only if they meet a specific need and quality standards, to avoid waste. Develop criteria to help you make and justify decisions on accepting such donations.

Closely monitor stocks and equipment to have visibility of what is in your warehouse, to avoid waste due to expired or damaged items.

Improved programme planning and forecasting, leading to more effective supply chain planning for both supply and demand, can help you minimize the use of airfreight, and increase the use of other means of transport like sea, road, or rail freight. These are less carbon intensive, and often cheaper.



Travel and Fleet

Train all staff in eco-driving practices: e.g. shut off the engine when idling to reduce fuel consumption, use AC reasonably, avoid sudden acceleration.

Use smaller fuel-efficient vehicles: the weight of a vehicle and its engine size determine fuel consumption, and therefore the carbon emissions that it generates and the cost of operation. Use the right sized vehicle for the right purpose.

Only fly if it is unavoidable: avoid air travel for meetings/events that can be held online, ban air travel when train options of less than five hours exist, prefer direct flights as most emissions occur during take-off and landing.



Waste

Ensure collection of waste generated by your organisation at the office, warehouse, or at project or distribution sites, so that it can be properly managed.

Reduce as much as possible the use of single-use packaging and single-use items in projects, at the office and during training and events.

Look for opportunities to work with local partners involved in reuse or recycling of waste. There are usually options even in the most remote locations.



Premises

Paint the roofs of your premises white to keep buildings cool in hot countries.

Train staff in energy efficiency, monitor water and electricity bills to analyse consumption and track leaks.

Adjust the temperature of the a/c or the heating up or down to save energy; don't leave electrical devices switched on in stand-by mode.

Only buy LED lightbulbs, as they last longer and save energy.

Consider if a solar energy system could provide for some of your office or warehouse energy needs.



INTRODUCTION

In line with the [Climate and Environment Charter for Humanitarian Organisations](#) which IFRC, ICRC and various Red Cross Red Crescent National Societies have endorsed, this short Guide aims to help practitioners integrate environmental and climate change considerations into their work. It has been developed primarily for logistics staff, administrative staff, and management. It is not necessary to be an environmental expert to use this Guide.

The Guide consists of the following sections:

1. [Procurement](#)
2. [Supply chain planning](#)
3. [Travel and Fleet](#)
4. [Waste](#)
5. [Premises](#)

Before we start, here are some general considerations:

Introducing environmental sustainability¹ into our practices can seem like an overwhelming job, so an incremental approach is necessary. **It is not possible to become 100% sustainable overnight, so start with some of the easy 'quick wins' suggested in this Guide** and remember: there's no single path to sustainability!

Being environmentally responsible is about:

- Changing behaviour e.g. reducing energy consumption
- Upgrading our premises and equipment e.g. energy efficient equipment
- Updating processes and policies e.g. travel or procurement, to ensure good practices are systematised.

¹ Environmental Sustainability: responsible interaction with the environment to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.

² https://climateactionaccelerator.org/carbon_footprints/

Environmental sustainability does not have to be costly! Most of the tips suggested here need little financial investment and can even help you make savings.

The supply chain management function accounts for a significant part of the carbon footprint (on average 50%²) and overall environmental footprint of an organisation. Therefore, staff and volunteers working in Logistics functions have a big role to play, but need to be supported by management and other departments. Decisions about supply chains are not made only by Logistics staff. Regular feedback and communication between programme and logistics staff is key.

Reducing our environmental footprint is complex as we need to take into consideration many factors when making decisions: finance, security, speed of humanitarian response etc. **Humanitarian assistance will always have an environmental impact, our first aim is to be aware of it, and then to reduce it as much as possible.**

The Guide includes examples of how National Societies around the world are being more environmentally sustainable. The suggestions are context specific: pick and choose the ones you think apply to your setting.

Consult the IFRC [Green Response Working Group](#) to help you find solutions for your context, and share your experiences, lessons and challenges so that we can learn from each other.

PROCUREMENT

Purchasing and delivering relief items and related services represents one of the biggest sources of greenhouse gas emissions for a humanitarian organisation: between 40 – 70% of the organisation’s carbon footprint³. Much of this comes from the carbon emissions in the manufacturing process of products. Procurement is therefore a key area to prioritise.

WHAT TO KNOW THE BASICS

The ‘greening’ of procurement may be easier in some operational contexts than others, due to the existence of more sustainable goods and services in the market. In any case, guidance may still be required to help teams to know which goods or services to choose. In the next sub-section, you will find some suggestions on how to start that discussion internally and to engage with your suppliers and service providers.

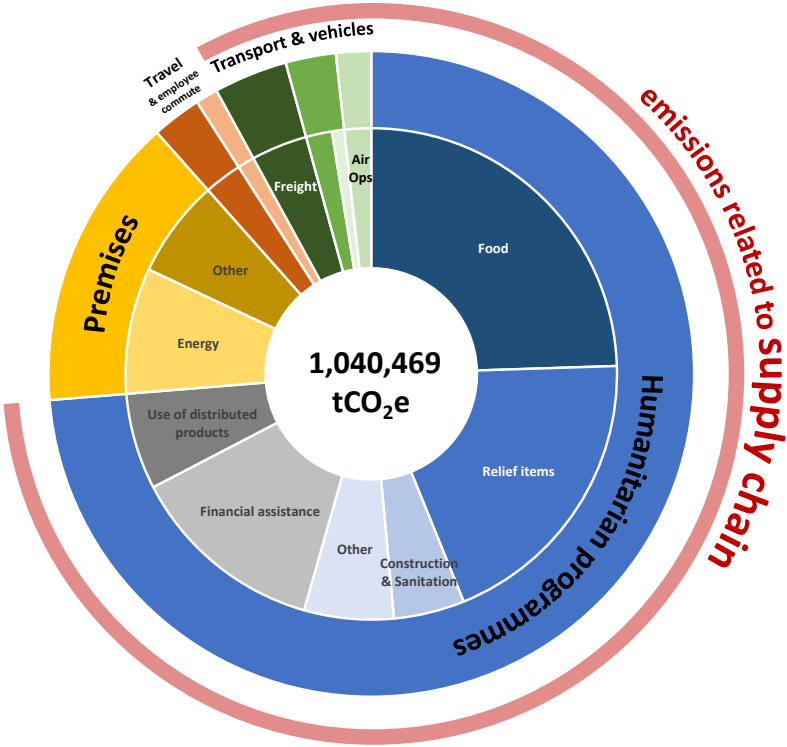
In procurement – more so than in other areas of logistics – **collaboration between programme staff (requesters) and logistics staff (buyers)** is key in order to make sure that the most environmentally sustainable decisions are made.

WHERE TO START SOME HINTS AND TIPS

A good starting point is to include environmental considerations in your tender and contractual documents (e.g. clauses in your contracts, environmental stewardship in your code of conduct, etc.). This will help create a dialogue with your suppliers on what can be done to reduce the environmental and carbon footprint, demonstrates leadership, and sends a clear signal to suppliers that this is the direction your organisation wants to go.

3 Climate Action Accelerator

In coordination with programmatic staff, include environmental considerations in the specifications of key items that you buy for the office or for the programmes – those you purchase in large volumes each year. This is a key step to move to more sustainable solutions and to encourage suppliers to improve environmental standards. Ensuring systematic quality checks when items are received is also essential to ensure they meet the specifications.



ICRC's carbon footprint 2020 – 64% of its total carbon footprint is linked with purchased goods and service, while transportation represents less than 10%.

Here are some questions that could be considered:

- Can the packaging be removed without compromising the quality of the item?
- Can more sustainable packaging be used (ex: non bleached brown cardboard vs white bleached, non-laminated packaging, packaging that is made of one material to allow for recycling)?
- Can the item be purchased in bulk?
- Can natural ink on the packaging be used?
- Is the item repairable? Can it be disassembled and part of it replaced if broken?
- Is there a reusable option of the item instead of a disposable one?
- Can an item of better quality/durability and therefore with a longer lifespan be chosen, even if it costs more? This will minimise the need for replacement.
- If the quality and the durability is the same, can the item or its packaging contain a percentage of recycled content? (e.g. paper, blankets)
- If made of plastic, is the item and its packaging in compliance with local legislation?
- Can the item or its packaging be recycled locally at the end of its life?
- Are eco-labels available for the items you want to purchase⁴? These are often available for cleaning products, electronics, some items such as palm oil, textile etc.

⁴ See [here](#) more information on the use of ecolabels for humanitarian organisations and the Global directory of [ecolabels](#).

The Inter-Agency Procurement Group’s (IAPG) new *Supplier Sustainability and Ethical Code of Conduct*

Suppliers

- must at all times, comply with existing environmental legislation and regulations.
- should develop environmental impact goals and implement an environmental policy.
- should minimize water usage/waste and adopt water saving technologies where possible.
- should adopt work culture and business practices that endeavor to reduce waste throughout the lifecycle of your products and operations .
- should have a clear understanding of your carbon footprint and a plan to reduce it.

The full code of conduct is available [here](#), while an editable template version is available [here](#).

GOING A STEP FURTHER

Next steps include deepening the sustainability discussion with your suppliers, and incentivising them to improve their practices. Experience shows that suppliers are often willing to make adjustments even in complex operational environments, and they are already doing more for their commercial clients. This can be done by:

- Including environmental considerations in the bid analysis: e.g. 5–10% weight if a supplier has an environmental management system like ISO 14001, an environmental policy or equivalent and can show compliance with the policy.
- Considering setting up a take back⁵ scheme with suppliers or manufacturers to collect used products so that they can be reprocessed: water dispensers, cartridges, printers, phones, pallets etc. Although not extensively used in the humanitarian sector, ‘reverse logistics’ practices can help organisations make financial savings and improve the sustainability of their operations.
- Prioritise and enable long-term agreements with suppliers that have a robust carbon reduction plan in place. See if environmental improvements can be made to the items you are purchasing or to their general practices. Request information from suppliers on carbon emissions and life cycle impacts of products to enable more informed bid analysis in tenders.

⁵ An initiative organised by a manufacturer or supplier, to collect used products / materials from consumers and use them again in the original processing and manufacturing cycle.

The cost of greening the humanitarian response

There are many ways we can reduce our environmental footprint while saving costs at the same time. In the case of packaging for example, using recycled brown rather than bleached cardboard is cheaper. Reducing unnecessary packaging can also help by making goods and items lighter and cheaper to transport. More efficient fleet management can reduce fuel consumption and greenhouse gas emissions, and means vehicles need to be replaced less often, further reducing costs and the environmental impact of vehicle production.

In some cases, procuring more environmentally sustainable products or services may cost more up-front (e.g., solar panels for buildings) but these investments pay off over time as they often lead to lower energy or operating costs over the course of time. Similarly, investing in more durable relief items means they are less likely to need repaired or replaced.

These initial investments can be supported by institutional donors when they are properly justified, either during response or preparedness. Donors’ willingness to fund greener operations is growing and organisations can submit project proposals which reflect these additional costs.

In addition, in order to make informed procurement decisions, it is good to take into consideration the total cost of an item to be able to analyse purchase options. The total cost of an item (known as Total Cost of Ownership) includes integrating costs such as packaging, shipping, maintenance, and final disposal costs into the procurement decision.

Is local procurement more environmentally sustainable?

While procuring locally helps boost local markets and support local economies, we should keep in mind that buying an item locally does not necessarily mean that it has been produced locally, as products that are available on local markets may in fact be imported.

Besides, the way an item is manufactured and produced accounts for a significant part of its environmental footprint (often more than its transportation does). Some locally available products may have a higher environmental footprint due to local unsustainable manufacturing conditions. Similarly, sustainably produced items that are shipped long distances by sea can in fact have a lower carbon footprint than items that are sourced locally.

When buying local, ask yourself questions such as:

- Has the item been produced locally, or is it imported?
- Do we have any information on how the item has been produced?
- Can the local supplier provide warranties and spare parts as needed, and carry out repairs?

These questions can help you determine whether international or a local procurement is better for your programme.

Recognising that answering these questions is challenging, organisations are increasingly carrying out Life Cycle Analysis (LCA) of the items they procure, to guide their procurement decisions. LCAs help understand the various environmental impacts of an item from production to disposal, including carbon emissions, soil

degradation, water pollution. While LCAs are not yet widely used by the sector, results from existing LCAs can help procurement officers make informed decisions about what item to procure.

Read here a study comparing the total environmental footprint of the therapeutic food item CSB+⁶ purchased in 2 different locations (Rwanda and Belgium).

“Encourage local procurement of locally produced materials, where acceptable quality and environmental standards can be verified in market assessments, to support the local economy and reduce transportation and greenhouse gas emissions”

—Green Recommendation, IFRC
Green Response: Environmental Quick Guide



Sacks of Corn Soya Blend in Ethiopia. © Marjo Leppanen / Finnish Red Cross

6 Corn Soya Blend

GOOD PRACTICES FROM THE SECTOR

- In Lebanon in 2021, ICRC provided seedlings in plastic trays to affected communities. They were later collected and returned to the supplier so that they could be reused. The supplier even gave a discount for all non-damaged trays returned. [Read](#) more about this project.
- UNICEF removed single use packaging from its mosquito nets, after discussions between buyers and suppliers, and is now distributing the majority of its nets in bulk. Between 2021 and 2022, UNICEF avoided using 11.5 million single-use plastic bags, while generating US\$317,000 savings. Read [here](#) for more information.
- ICRC Afghanistan revisited product specifications (replacing plastic packaging with cardboard) as well as its distribution routes (delivering items directly to distribution sites without having to first go through the capital city). Read about the lessons learnt from this experience [here](#).
- IFRC MENA region developed green specifications for the selection of hotels and taxi services. Even if these were not always met, this helped trigger the discussion internally and externally. Contact goran.boljanovic@ifrc.org for more information.
- Save the Children has been engaged in greening its supply chain for some years now from a sustainable development approach (social, environmental, economic development). Read more about its suppliers sustainable [policy](#) as well as its general [approach](#).

Bio-based, biodegradable, compostable, recycled plastics? What does it mean and are these more sustainable?

Although often touted as more environmentally sustainable, alternatives to conventional plastics (e.g., biodegradable, compostable or bio-based plastics) should be considered carefully as they may not be appropriate for humanitarian settings, and may not be more environmentally sustainable when we look at the full life cycle. It is important to understand the various options that exist, not all should be considered as quick fix solutions to replace plastic packaging.

Read a guidance [note](#) on alternatives developed by the [Joint Initiative for Sustainable Humanitarian Packaging Waste](#)⁷ to understand some of these differences and related challenges.

The ICRC/IFRC/UNHCR eco-design tarpaulin [project](#) is also gathering lessons learnt on the use of these materials, including noting that biodegradable materials require specific conditions (humidity, temperature) to biodegrade, and these conditions are often not met in humanitarian settings. The project has also concluded that the use of recycled materials is to be considered carefully to ensure that quality and longevity of the item is preserved. e.g. ultraviolet light exposure and mechanical laboratory tests undertaken for tarpaulins showed a decrease in lifespan when adding recycled plastics.

⁷ The Joint Initiative (JI) brings together humanitarian actors to reduce the negative environmental impacts of humanitarian action, with a focus on packaging waste. It provides tools, guidance and information on key issues and advocates for effective solutions to the global waste crisis.

WHAT CAN HELP YOU MAKE A CHANGE

Want to look for sustainable criteria?

- The ICRC-IFRC Emergency Items [Catalogue](#) has suggested sustainability criteria for twelve of the most purchased relief items, with information on the percentage of recycled content, the preference for reusable items over disposable, avoidance of sub-packaging etc. ICRC has developed further tips to help you draft sustainable specifications per [category](#) of items (e.g.: food, hygiene materials, clothes, fuel etc.)
- 'Sustainable stewardship' is a key element of the relationship ICRC has developed with its suppliers globally. Read ICRC's Sustainable Procurement information [sheet](#), sustainable procurement [guidelines](#), and the green procurement [workshop](#) of the Sustainable Supply Chain Alliance. ICRC has also developed [presentations](#) to help you better understand what sustainable procurement means.
- The [Joint Initiative](#) developed a list of sustainable packaging criteria, which can be used by organisations when writing tender contracts to help reduce the environmental risks linked with packaging. These look at the composition, type, size of packaging and sub packaging as well as issues such as after use & transport.
- See [here](#) the sustainable criteria list for goods and services (including hotels, venues etc.) developed by the Sustainable Procurement Working Group of the Réseau Environnement Humanitaire.

Want to learn more about sustainable procurement in a humanitarian setting?

- Climate Action Accelerator ([Procurement](#) page) offers a wide range of resources & tools on green procurement (e.g.: how to engage with suppliers, how to include environmental issues in requests for proposals, invitations to bid, terms of reference etc) and specific guidance on environmental considerations for food, non-food and medical items.
- Check out the QSE (Quality, Social and Environmental) training developed by ICRC- online training that takes 1.30 hours as well as the ICRC QSE audit [form](#).
- WREC⁸ [online e-training](#) on Introduction to Green Logistics.

Example from the ICRC-IFRC Emergency Items Catalogue: Green Specifications for kitchen sets

The items are made of stainless steel for a long lifespan. The stainless steel should be 100% recycled. Move from white cardboard boxes to brown boxes to reduce pollution generated by bleaching the cardboard. The components are not individually packed anymore, all plastic bags have been removed. Internal sub-packaging is made of paper where required. Change the design of the kitchen knife to avoid plastic protection of the blade (blunt end instead of sharp). The kitchen set is designed to be packed in the smallest volume.

⁸ The WREC [project](#) aims to reduce and manage the harmful consequences of humanitarian logistics and supply chain induced waste and pollution in a focused and sustained manner in collaboration between the Global Log Cluster, WFP, IFRC, Save the Children and Danish Refugee Council.

SUPPLY CHAIN PLANNING

As a result of poor planning or poor storage conditions, **a significant amount of humanitarian items end up as waste because they are either expired or damaged**, causing a direct environmental impact. This results in lost financial resources, creates additional waste which needs to be handled (which also costs money) but most of all a *“missed opportunity to help people in need”*⁹. A UN Agency calculated that 176 tons/year of their reproductive health kits¹⁰ were wasted as a result of damaged or expired stock.

WHAT TO KNOW THE BASICS

- Efficient preparedness and response forecasting, to support supply chain planning, can help your organisation respond faster and **make financial savings by**:
 - » Enabling the use of cheaper methods of transportation, both for transporting and distributing goods
 - » Allowing for less transportation: only what is needed is supplied, when it is needed
 - » Collaborating with other humanitarian organisations on pooled procurement, transportation, and warehousing
 - » Purchasing and pre-positioning supplies in advance (both physically or virtually through agreements with suppliers), rather than when crisis hits and brings the risk of scarce supplies and higher prices
- Efficient preparedness and response forecasting, and support supply chain planning, can also help your organisation reduce its **environmental footprint** by:
 - » ‘Right-sizing’ procurement: only needed items are procured and stored for when they are needed, leading to less waste
 - » Enabling use of less carbon-emitting modes of transport i.e., land and sea based, less reliance on air transport
 - » Exploring more sustainable alternatives for purchased items and packaging
 - » Pre-positioning of relief items in order to be able to respond quickly to those in need is essential, but requires efficient programme forecasting and supply chain processes to be in place to monitor stocks properly. ‘Dead stock’¹¹ or very low inventory rotation is usually a symptom of inefficient contingency planning. Pre-positioning a limited number of items and minimising the quantity of perishable items can help keep better track of stocks.
- Unsolicited in-kind donations, which – although well-intentioned – are not context-appropriate or adapted to the needs of affected communities generate waste and carbon emissions. Stocking, managing, and disposing of these unsolicited items incurs additional costs.

⁹ CHORD & UNFPA Report 2022 “Measuring the environmental impact of UNFPA’s humanitarian supply chain”

¹⁰ Interagency Emergency Reproductive Health kits

¹¹ Dead/sleeping/dormant stock refers to stock which is stored but has not been used for a long time. It takes up space and costs money.

WHERE TO START SOME HINTS AND TIPS

Improve stock management by:

- Ensuring that procurement is 'right sized' i.e. well planned, so that you only procure what programme staff request and will use.
- Accepting donations only if they meet a specific need and quality standards and be aware of the hidden costs¹² linked to any donation received as well as the environmental implications. Ask questions such as Would we buy these items ourselves? Are these donations going to help us reduce operational/procurement costs? Are these items the appropriate quality, type, quantity? Do these products have an upcoming expiration date? If so, are these donations likely to end up as waste?
- Monitoring stocks and equipment across all locations on a regular basis to have good visibility of what you have. This includes keeping track of donated, damaged, and expired stocks, identifying dead stock that could be used, donated or sold, and regularly reporting inventory lists to programme and senior management, indicating the owner or responsible team as well as the date for different batches since received. This also includes doing maintenance of stored equipment to ensure it is ready to use at any moment (i.e.: generators, water treatment plant).
- Rotating stock by applying the "first expired first out rule" (FIFO rule), paying specific attention to tracking stock with short shelf life and training logistics staff in stock rotation.
- Donating overstocked or soon to be expired items to local NGOs or authorities. This needs to be anticipated and planned in advance, to allow sufficient time to find the right partner.
- Ensuring proper storage conditions to reduce damage to items, following recommendations provided by the supplier. This can also be done by ensuring adequate air circulation around and inside warehouses to preserve stock, and ensuring containers are off the ground and placed on reinforced concrete blocks (to avoid damage by rodents, for example).



Damaged stock after poor storage conditions

¹² For example, import and in-bound transport costs, handling and storage costs at the warehouse, disposal costs if goods get damaged or expired. National Societies' warehousing space is limited, using it to store 'sleeping stocks' and renting additional warehouses to keep those products actually required is not an efficient practice (is more costly and increases the carbon footprint).

Ownership of stock and assets

Some National Societies have been given stocks or assets which they do not legally own, and that they therefore cannot use as they wish. This was the case in Sudan, where dozens of broken cars were lying around the warehouse but were not formally owned by the Sudanese Red Crescent (SRC) and so could not be disposed of appropriately (see photo below).

After reaching an agreement with the legal owner of these cars, the SRC eventually sold part of them to metal recyclers in country generating a total of 56,000 USD.

Ensuring that those who manage stock or assets are given ownership is essential to ensure proper rotation and avoid wastage and the related environmental impact.



Sudan Red Crescent – idle cars in compound. @ Claes Silfverhjelm

Improve Forecasting

- In contexts where crises and humanitarian responses are increasingly frequent and also predictable¹³, try to anticipate needs in terms of items and supplies. Accurate quantification of needs (measured rather than assumed needs¹⁴), including when items are needed, can help reduce the need for urgent orders and avoid overstocking which can lead to waste. A historical analysis of your National Society's responses during the last 5–10 years can help identify cyclical trends and volumes of products purchased every year, to help estimate future demand¹⁵.
- A joint procurement plan should be produced by programme and logistics teams during the design of any new response. The more engagement between teams, the better operational needs and procurement/logistics capacities will be aligned. For instance, logistics staff should provide lead times for the main items so that a clear procurement plan can be shared with programme staff in advance. Programme teams can forecast when items will be needed, allowing different sourcing and transport options (airfreight, sea-freight etc.) to be planned.
- Consolidate programme procurement plans across the National Society to optimise orders and shipments. Coordination of planning across different departments or branches can be challenging, but the financial and environmental benefits can be significant.

¹³ It is estimated that half of today's crises are somewhat predictable and 20 per cent are highly predictable (OCHA).

¹⁴ CHORD & UNFPA "Measuring and reducing the environmental impact of UNFPA's humanitarian supply chain", 2022.

¹⁵ For National Societies making regular use of the DREF as an emergency funding mechanism, the IFRC can support with stock historical analysis and trend identification. Then the [DREF anticipatory pillar](#) can enable you to take early action before disasters strike (including better forecasting and logistics planning).

Sea vs. air transport

One of the main benefits of efficient supply chain planning for humanitarian organisations, following from quality programme planning, is that it enables them to prioritise sea (or land/rail) shipments over urgent orders which are often shipped by air. Sea shipments are much cheaper and emit much less carbon dioxide (20 to 30 times less) than air shipments¹⁶.

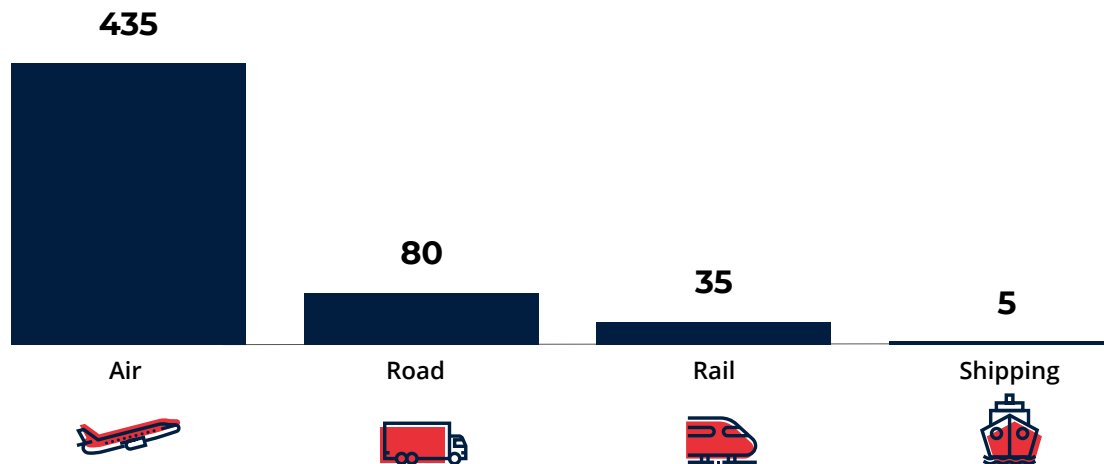
Better planning and use of slower methods of transport can also help you can achieve significant financial savings. For example, the Italian NGO Emergency calculated that they paid at least ten times less for sea shipments than for air shipments for the same sized orders.

NGO Emergency's shipping costs estimates:

1 kg shipped by sea: \$0.20

1 kg shipped by air: \$5-7

Emissions by mode of transport



Carbon emissions compared across transportation modes: air, road, rail, sea shipping. Grams of CO₂ emissions per ton transported per km. Source: Marine Digital

¹⁶ <https://8billiontrees.com/>

GOING A STEP FURTHER

- Buy stocks in advance and negotiate with your suppliers for the possibility of 'white stock'¹⁷ or Vendor Consigned Item¹⁸ agreements i.e. where stocks are kept for organisations at suppliers' premises without charge. This can help avoid waste and deterioration of stock, which is not utilised within the expected timeframe, and means that stocks can be replenished and deployed to affected communities more rapidly in an emergency.
- Review, together with your suppliers, the routing used for the delivery of items to see if more direct or environmentally friendly routes (i.e. surface not air; rail not road) can be used that meet the programme's requested delivery date(s). Optimising distribution routes and palletisation increases loading rates in freight containers: this leads not only to reduced carbon emissions but also cost savings.
- Talk to your suppliers and request that purchased items have a minimum of 9–12 months shelf life. Agree on a return mechanism if it is not the case. This will help your organisation reduce the amount of waste created as a result of expired stocks.
- In coordination with programme staff, define criteria to accept unsolicited in-kind donations (minimum quality accepted, shelf life, packaging etc.) and communicate it with your partners, donors, and the public. It is easier to reject unsolicited donations or inappropriate in-kind contributions if you clearly explain your criteria. This can also help maintain donor and public relationships and divert donations towards more appropriate forms such as cash.
- Take into consideration the distribution capacity of your organisation when planning the response and, from that, your supply chain. It is a waste of resources supplying large volumes of relief items and equipment quickly into your warehouses if later the goods stay weeks and months waiting to be dispatched to distribution teams. This costs more and produces more carbon emissions. Look for alternative options of more regular supply from suppliers aligned with the programme response plans, and if possible, with direct delivery to your local branches or distribution points, avoiding intermediary warehouses.

¹⁷ White stock is a technique where no logos are printed on the packaging, giving more flexibility to be sold/used by different organisations (if visibility is needed, it will be up to the final purchaser to add logos on the packaging). White stock can be stored by the supplier.

¹⁸ Vendor Consignment is a process where the supplier provides materials and stores them in their own premises, and usually invoice is triggered only when the purchaser requests dispatch.

GOOD PRACTICES FROM THE SECTOR

- Some National Societies like the Spanish Red Cross have invested time and resources improving their own stock management to avoid waste (see photo below). On a regular basis, stocks are counted, items in warehouses are rearranged according to the last delivery, and staff are reminded of the FEFO rule. Read [here](#) to find out more about experience of the Spanish Red Cross in **managing in kind donations**.
- IFRC has a **coordination tool** to help minimise unsolicited in-kind donations in emergency contexts. The mobilisation table helps information sharing between National Societies and institutional donors, summarising the existing outstanding needs and donations received on a regular basis during the emergency phase of new relief operations. This tool helps better manage donations and provides justification for the rejection of donations, avoiding receiving too much of some items and not enough of others. To find out more, contact juan.galvez@ifrc.org.



Spanish Red Cross verifying in-kind donations upon reception

- The French Red Cross has invested in a **digital stock management tool** allowing it to better manage emergency stocks stored across eleven warehouses of National Societies in the Indian Ocean. This has helped improve coordination and deployment of stocks in the event of emergency and reduce unnecessary stock levels. Read [here](#) for more information.
- The Hellenic Red Cross set up a take back scheme with its suppliers of emergency kits, to return wooden pallets after distribution. This freed up space in their warehouse, as well as allows the pallets to be reused by the supplier.
- Sudan Red Crescent reorganised its warehouses to free up space and assess if there was stock that could be donated or used. As a result of this, the SRC identified that a lot of items were no longer used and could be donated or disposed of and some equipment (old cars, fire extinguishers etc.) was sold to a metal recycling company. This helped generate income and minimise the need to rent another warehouse, making energy and financial savings.

WHAT CAN HELP YOU MAKE A CHANGE?

Want to read more about what the environmental impact of supply chains?

[CHORD](#) supported UNFPA to better understand the savings (financial and environmental) which can be achieved through better supply chain planning. Read the [2022 report](#).

TRAVEL AND FLEET

WHAT TO KNOW THE BASICS

Air travel is a main contributor to the carbon footprint of humanitarian organisations, and there are many ways we can reduce our carbon emissions from flights without negatively affecting our work.

Access to disaster affected and remote areas is essential for our work, and ensuring the safety of staff and volunteers travelling to, from and within those areas is a priority. The vehicles used by organisations therefore need to be roadworthy and safe to use. However, the **types of vehicles we use influence the amount of money we spend on fuel, the quantity of CO₂ that we emit, the volume of waste we create and the local pollution we generate.**



The IFRC warehouse in Panama

19 [Climate Action Accelerator: https://climateactionaccelerator.org/solution-areas/business_travel/](https://climateactionaccelerator.org/solution-areas/business_travel/)

20 [The Cost of Fuelling Humanitarian Aid 2017](#)

21 Ibid

Did you know?

- Carbon emissions from a round trip flight from London to San Francisco represents 5m² of arctic ice melting¹⁹
- 5% of the total budget of humanitarian agencies goes on diesel, petrol, and associated costs, such as fixing generators?²⁰
- One litre of waste engine oil can contaminate 1,000,000 litres of water²¹
- Protecting wood from termites with used oil is extremely harmful to the environment and human health
- Batteries contain chemicals (e.g. lead, lithium), which end up in the soil and contaminate our water supplies when the battery corrodes.

WHERE TO START HINTS AND TIPS

Air Travel

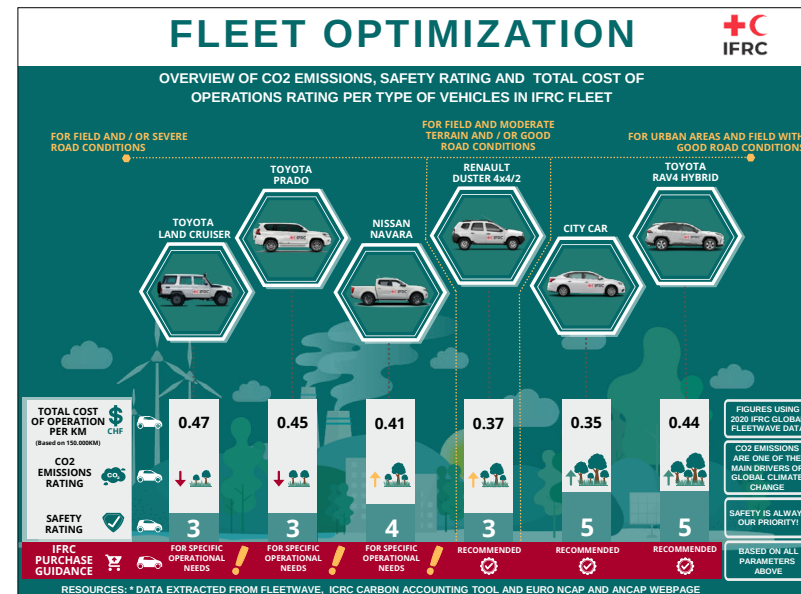
- Avoiding air travel (for meetings, events, monitoring trips, missions) is the most impactful action that can help you reduce your travel emissions. Did you know that avoiding a return flight from Madrid, Spain to Rio, Brazil has about ten times more impact than switching to a vegetarian diet for a year?²²
- Revise your office travel policy e.g.: set up clear criteria to determine the necessity for travel, ban air travel when train options of less than five-hours exist, only use direct flights as most emissions occur during take-off and landing.
- Choose airlines which emit less CO₂ & fly economy rather than business class. The Climate Action Accelerator has developed tips and [resources](#) to reduce our air travel emissions.

Fleet

By having the right number of vehicles and using the right vehicle for the right purpose and in the right way ('right profiling'), we can make savings and reduce our environmental footprint.

- Avoid unnecessary trips and encourage other transport options (public transport, motorcycle, bicycle, walking for local trips, trains for long trips). Improving fleet planning to optimise routes and facilitating carpooling helps reduce missions and costs. When planning a trip, ask yourself questions such as "Is this trip necessary? Can this trip be pooled with another colleague?"

- 4x4 vehicles such as Toyota Land Cruisers and Prados are expensive, emit a lot of CO₂ and are not always necessary, especially in urban areas and if the roads are good.
- Within our organisations, different teams often visit the same locations, in some cases at the same time. This is because vehicles are often allocated to one person or department. A UN agency found in 2017 that 60% of their vehicles departed in the same direction within 30 minutes of each other²³. Carpooling can significantly reduce fleet emissions. Watch this [video](#)²⁴ and read [this](#) which show examples of how humanitarian organisations are carpooling.



Fleet optimisation poster developed by IFRC/ICRC comparing various fleet options which can help you understand the different characteristics (financial, safety, carbon emissions etc.) of vehicles. This poster can be printed in your office as a way to raise awareness. ([download here](#))

22 Stay Grounded: <https://stay-grounded.org/get-information/#impact>

23 Data from the Sustainable Fleet Training produced by ICRC and accessible via IFRC learning platform.

24 Developed by the REH (Réseau Environnement Humanitaire)

- Manage fleet sustainably: have the right mix of smaller, more eco-friendly vehicles and 4x4 vehicles, and use 4x4 vehicles only when required due to road conditions or security. Monitor use of fleet (utilisation, fuel consumption, kilometres travelled).
- Buy or rent smaller and lighter vehicles. The weight of a vehicle and its engine size are the most determining features of its fuel consumption, and therefore the emissions that it generates. For example, the average consumption of a Renault Duster is 8.1 litres/100km while that of a Toyota Fortuner is 13.1 litres/100km²⁵.

By ensuring responsible management of workshop waste (used batteries, oil, and tyres in particular) we can avoid local pollution and damage to human and environmental health.

- Ensuring regular and preventive maintenance of vehicles will help extend their lifespan, improve safety, and reduce pollution and carbon emissions of old, inefficient vehicles.
- Manage vehicle workshop waste in the most appropriate way. Consult the ICRC guidance for general tips and for the do's and don'ts for reducing, storing and disposing of used oil, filters, batteries, tyres. If you use a third party company, check your provider is managing waste in a proper manner (e.g. by requesting that a waste management system is place and complying with local regulations, or carrying out a visit).
- Make sure everyone is aware of the major impact workshop waste can have on the environment. For example, the [ICRC workshop waste guidance](#) has a traffic light system, see below for the entry on batteries.

²⁵ Fleet Forum [Training](#)

²⁶ Ibid

²⁷ <https://scdhec.gov/sites/default/files/Library/CR-010109.pdf>

²⁸ Ibid

²⁹ Ibid

Eco-driving: improving driving practices

Eco-driving is a driving style which can help to reduce costs by using less fuel (up to 20%²⁶), also lowering air pollution and carbon emissions. Read [here](#) how the Lebanese Red Cross (LRC) is promoting eco-driving through awareness raising and training of its drivers and staff. Download the poster [here](#).

Examples of eco-driving practices:

- Driving at appropriate speeds: depending on the vehicle and context, fuel consumption rises quickly above 80km/h. Avoiding excessive or sudden acceleration or braking and keep helps reduce consumption and therefore CO₂ emissions.
- Shutting off the engine when idling to reduce fuel consumption: idling uses up to 2 litres of fuel per hour²⁷
- Washing cars only when necessary, and with rainwater if possible.
- Using the air-conditioning (AC) responsibly: AC increases fuel consumption by up to 20%²⁸.
- Maintaining proper tyre pressure. Driving vehicles with just one tyre underinflated by 56 kPa (8 psi or 0.56 bar) will increase fuel consumption by 4%, costing money and releasing more emissions into the atmosphere.²⁹

GOING A STEP FURTHER

- Allocate a kilometre budget for each staff member per month. Depending on their role, staff members could have a kilometre budget which they have to report against each month.
- Encourage and reward staff who use public transport or carpool rather than using an individual car to get to work.
- Encourage purchase of low-emitting and fuel-efficient vehicles when possible.
- Partner with certified recycling companies which can handle used batteries, tyres, and oil even if these are not locally based and need to be transported over long distances. Transporting batteries to adequate facilities up to 1,000km is consistently better than inadequate, poor local recycling practices. However, this needs to be planned and budgeted for, and might require you to partner with other organisations.



Lebanese Red Cross Eco Driving Poster

Example of the ICRC traffic light system for garage waste

| Waste Type | Hazard Level | Risks | Opportunity for Reduction | Storage | Disposal |
|------------|--------------|--|---|---|--|
| Batteries | HIGH | <ul style="list-style-type: none"> • Damaged batteries may leak. Highly toxic, contains carcinogens, heavy- metals, and other potentially harmful by- products. • Highly corrosive • Polluting • Very reactive | <ul style="list-style-type: none"> • Use long-life, sealed batteries wherever possible. • Avoid allowing batteries to lose charge completely. • Recharge stock batteries periodically (at 2-3-month interval) • Install a fixed roof mounted solar powered battery charger • Reduce unnecessary drainage of batteries • Train drivers on techniques to prolong battery life | <ul style="list-style-type: none"> • Batteries should be stored upright under cover to keep them dry. • Stacking needs to be separated with cardboard to prevent terminals from puncturing adjacent units. • Cracked or leaking batteries needs to be placed in acid-proof containers with neutralizers. They should be stored in impervious surfaces and not on bare ground | <ul style="list-style-type: none"> • Recycle with specialist service provider |

What about electric or hybrid vehicles?

Hybrid and electric cars can be used in countries where the electric grid is stable and charging stations are available. Switching your fleet from fossil fuel vehicles to hybrid or electric cars, either through purchase or rentals, can help you reduce carbon emissions as well as your garage waste (engine oil & filters). In some cases, installing a charging station in the office grounds and charging vehicles during the night, especially electric motorbikes, could be a solution for urban programmes. See [video](#) on how ICRC in India switched their fleet to electric vehicles for urban transport.

Nevertheless, when considering other environmental impacts, recent studies have shown that, depend on the country of operations, reducing the size and weight of your vehicle is as efficient and sometimes more efficient than introducing electric/ hybrid vehicle cars.

For more information, read [here](#).

Look at these short myth busting videos on electric vehicles:

1. Are [Electric Vehicles](#) emitting more CO₂ than internal combustion engine vehicles?
2. On electric vehicles and [dirty electricity grids](#).
3. On the [driving range](#) of electric vehicles.

GOOD PRACTICES FROM THE SECTOR

Costa Rica Red Cross – a champion in fleet optimisation

The Costa Rica Red Cross is the largest ambulance service provider in the country and has a total of over 700 fleet assets. Fleet optimisation was a natural step for this National Society to both reduce costs and carbon emissions. Activities have included: setting up a vehicle tracking system, introducing key performance indicators and fuel-efficient driving, optimising routes, and vehicle usage.

After four years, fuel consumption decreased by 19% which represented a saving of 113,000 USD/year and a decrease of yearly carbon emissions by 1420t/co₂. See [video here](#) and [case study here](#).

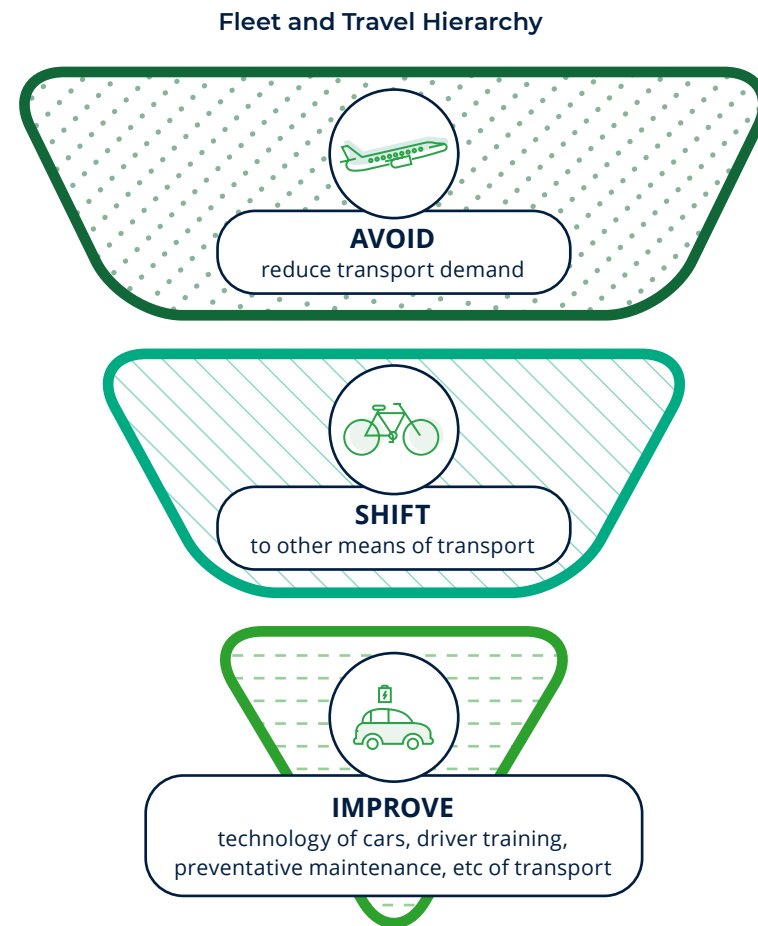
Check out [here](#) for a repository of good practices implemented in sustainable fleet management.



A vehicle from the Costa Rica Red Cross fleet.

WHAT CAN HELP YOU MAKE A CHANGE

- **Looking for ways to change your travel practices?** The Climate Action Accelerator has many tips and resources available [here](#).
- **Looking to increase your understanding on sustainable fleet?** This one-hour online IFRC [course](#) on sustainable fleet developed for non-fleet specialists can support change in your organisation. It is suitable for all staff: fleet managers, management, administration staff etc.
- **Looking to better manage your vehicle waste?** In addition to the ICRC [resource](#) which contains a traffic light system (page 11) to help better manage garage waste, check out the Quality Social and Environmental [questionnaire](#) and [template](#) which can help understand how garage waste is being managed and what improvements can be made.
- **Looking to understand and calculate the impact of your fleet?** The Clean Fleet [toolkit](#) provides practical advice to improve the efficiency and sustainability of your fleet by allowing you to quickly calculate emissions and identify actions.
- **Looking to introduce vehicle sharing practices?** Check Fleet Forum [guide](#) for NGOs on vehicle sharing.
- **Keep in mind the sustainable fleet and travel hierarchy.**



WASTE

Like all humanitarian organisations, National Societies generate waste through their programmes and day-to-day running of their offices. While programme-related waste often ends up in the communities where we work – those affected by disasters and crises – office-related waste remains under our direct control. All of this waste has a direct environmental impact, as well as affecting human health.

Improving our waste management practices is a cross cutting issue which calls upon our common responsibility as humanitarian workers under the do no harm principle. Whether we are working in logistics, programmes, or administration, we all have a role to play in making sure our decisions minimise the impact of the waste we generate. **We should each be responsible for the waste generated by the items and equipment that we order and handle.** Reinforcing this responsibility within your organisation is key.

WHAT TO KNOW THE BASICS

The waste generated by humanitarian organisations includes office waste, e-waste (computers, printers, phones etc.), programme waste (packaging waste, items that are no longer used etc.) and hazardous waste (medical waste, sanitation waste and waste produced from the maintenance of our fleet, generators, etc.). Each type of waste needs to be managed in a specific way.

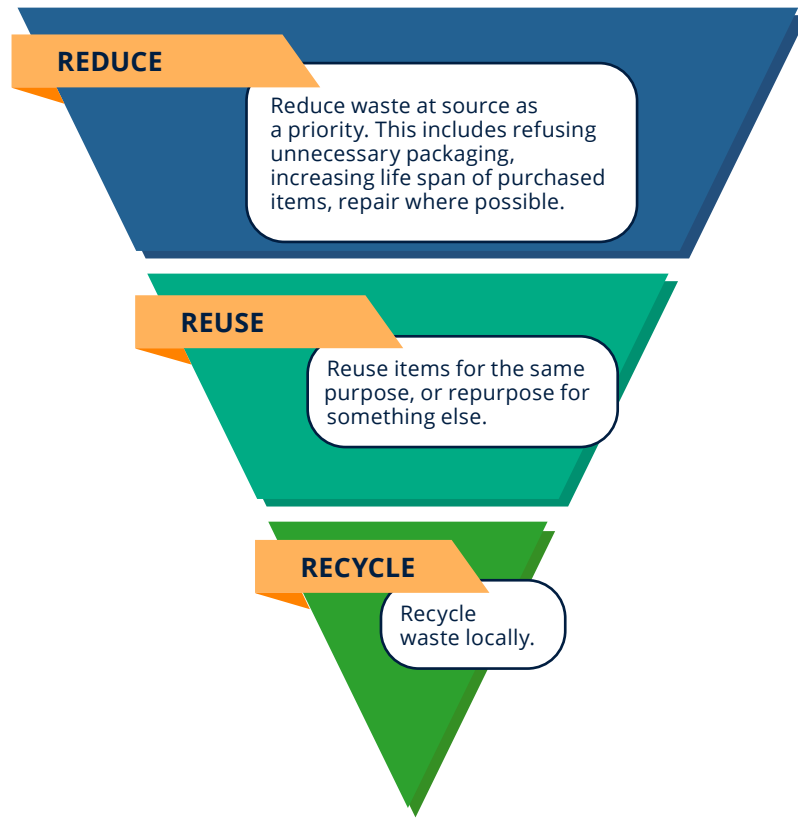
Plastic waste is of particular concern as it pollutes at every stage of its lifecycle, from when oil and gas is extracted to produce it, all the way to the end-of-life where plastic waste is littered, landfilled, downcycled, or burned.³⁰ Plastic waste breaks down into microplastics, and awareness is growing of the problems this causes to human and wildlife health –

30 Plastic Atlas 2019, Heinrich Böll Foundation & Break Free From Plastic

microplastics have now been found in human blood, as well as inside fish, birds and animals.

The best waste is the waste which we don't create. Think about the waste hierarchy and start by reducing waste at source as much as possible.

The 3 Rs: the Waste Hierarchy



Budget limitations may lead to the procurement of cheaper materials. However, these are often of poor quality and may not be used by affected communities for long as they can break or deteriorate rapidly. This means we generate more waste.

Recycling opportunities usually exist and partnering with local businesses can sometimes also generate income – communities can be involved in this as a small-scale livelihoods' activity. Nevertheless, in some contexts where humanitarian operations are ongoing these are often limited to specific materials (mostly PET plastic³¹, paper, cardboard and steel). Bear in mind that at global level, recycling rates are still very low: less than 10% of the plastic ever produced has been recycled³².

Adequate waste management requires funding: it is important to anticipate and include these costs in programme budgets e.g. to pay for collection, to transport recyclables or hazardous waste, to incinerate medical waste safely etc.



Volunteers collect waste in national parks and beaches. © Spanish Red Cross

31 Polyethylene Terephthalate (PET) – used commonly for water bottles

32 UNEP - Beat Plastic Pollution Fact sheet: <https://www.unep.org/interactives/beat-plastic-pollution/>

WHERE TO START SOME HINTS AND TIPS

- For distributions, events or trainings, request that items are delivered without packaging if possible and without single use items. Provide reusable/recyclable packaging and items according to what is recycled in your country. Plastic packaging is not always necessary. Have a discussion with your supplier, or your partner organisation if you are an implementing partner, to assess the feasibility of removing plastic packaging. Looking at reducing secondary packaging ('outer layer' packaging) may be an option.
- As a minimum, ensure proper collection of waste generated by your organisation (e.g. at your office, or at a distribution site,) so that it can be properly managed.
- Check that the company or local authority which collects the waste, disposes of it in a legally compliant facility which has the necessary environmental safeguards (e.g., no illegal dumping; controlled and fenced-off location etc.). This can be done by adding a clause in the contract and by visiting the site.
- Hazardous waste (e.g.: used oil from vehicles, medical waste) and electronic waste (e.g.: phones, computers) should be collected, labelled, and stored separately from all other waste (see fleet section for ICRC guidance on this).
- Look for opportunities to work with local partners involved in re-use or recycling of waste to give it a second life. For example, selling plastic, identifying local scrap metal dealers for some garage waste. Consider using pallets as tables or shelving, or using wooden crates which contain emergency tents as benches, using tent bags as back packs etc.
- Consider if visibility or branding items are necessary, and if their numbers can be reduced (e.g. banners, stationery and gifts being given at workshops and trainings). If these are needed, consider using paper-based items without plastic coating.

Shelter Box’s success in reducing single use packaging from shelter and non-food items

In 2018, the British NGO Shelter Box was unable to import a shipment of essential relief items to Kenya due to the ban on wholesale single use plastics (SUP). All SUP had to be removed manually – slowing down the humanitarian response and requiring extra resources (human and financial).

Shelter Box initiated a discussion with its suppliers and successfully removed unnecessary single plastic packaging from six of their frequently used relief items. As a result, nearly 200,000 plastic bags have been avoided since 2021. This has also set in motion organisational-wide changes and the establishment of working group to look at reducing the use of plastics throughout the organisation. Read more information [here](#) .

GOING A STEP FURTHER

- Prioritise reusable packaging (e.g. reusable buckets, fabric tote bags etc.) and make sure to communicate to affected communities, programme staff and volunteers so that they are actually reused.



Menstrual hygiene kits packaged in plastic buckets. © Netherlands Red Cross / IFRC

GOOD PRACTICES FROM THE SECTOR

- In Afghanistan ICRC replaced plastic bags with cardboard in their NFI distributions in prisons (read [here](#)), saving more than 60 000 plastic bags a year.
- Since 2013, the NGO [Emergency](#) replaced single use plastic bags with totes to distribute supplies to hospital departments, saving over 10 million plastic bags in ten years.
- ICRC and IFRC have been replacing the plastic packaging from Essential Household Items with cardboard. Previously, 8 to 10 pieces of plastic packaging would have been used to protect the items in just one kitchen set. As a result, 53 tonnes of plastic are saved each year, from improved packaging on kitchen sets, tarpaulins, and jerry cans. This totals around 14 million plastic bags saved annually.



WHAT CAN HELP YOU MAKE A CHANGE

- Looking for information on how to manage each type of waste? This IFRC [guidance](#) developed by Swedish Red Cross in 2020 gives sector-specific guidance for each waste category, and explains how to 'reduce, reuse, recycle'.
- Want to find out if there are recyclers in your country? Check [here](#) the database on recyclers in countries where there are major humanitarian operations developed by the JI and the WREC and more resources on what to look out for when developing partnerships with recyclers, and how to assess recycling companies to make sure they comply with minimum quality and environmental requirements.



Picture on the left: Plastic bags from a kitchen set. Picture on the right: kitchen sets after the change showing plastics replaced by cardboard/paper

PREMISES

Reducing our environmental and carbon footprint as humanitarians is also about changing our practices – whether we are working in an office (branch, HQ), a NS shop, or a warehouse. While our well-being is important, small changes can go a long way to reducing our environmental footprint and costs!

WHAT TO KNOW THE BASICS

- The humanitarian sector spends approx. \$108 million on generators every year³³, and many organisations use generators which are oversized and not adapted to their needs.
- 8% of all the energy we consume is wasted by appliances (such as lights, air conditioners, computers, printers, etc.) which are on standby or not being used.³⁴
- Setting your AC temperature 1°C higher can help make energy savings of up to 10%; setting your heating temperature 1°C lower can save up to 7%.³⁵
- A running toilet can waste from 100 to 1,000 litres per day³⁶ depending on the size of the leak.
- Rainwater harvesting is a simple and low-cost solution and represents a good opportunity for National Societies to reduce water consumption, particularly in water-stressed areas.
- 25% of printed documents are thrown away 5 minutes after printing and 16% are actually never read!

WHERE TO START SOME HINTS AND TIPS

Waste

- Discourage the printing of unnecessary emails, set printers to double-sided printing, avoid printing on glossy/laminated/shiny paper as these are not recyclable. Reduce the grammage (thickness) of the paper used if possible.³⁷
- Make water available to staff in large water dispensers, provide reusable cups/bottles and ban single use cups. In the kitchen, provide reusable (metal) cutlery for staff.
- Think about composting organic waste, which could be used to fertilise gardens. See ICRC’s experience in Mali on managing organic waste in the office.



33 Climate Action Accelerator Figures based on figures from 6 UN organisations and the ICRC

34 <https://www.ademe.fr/en/frontpage/>

35 NREL, Energy Impacts of Oversized Residential Air Conditioners — Simulation Study of Retrofit Sequence Impacts, 2014.

36 <https://www.thewaterscrooge.com/blog/how-much-water-do-running-toilets-use>

37 ADEME- Eco responsabilité au bureau 2020

Water

- Collecting rainwater from rooftops and directing it to tanks, to use for toilets, watering gardens, cleaning floors, and washing cars. Water dripping from your AC can also be reused for your plants!
- Installing water saving devices on your taps (e.g.: aerators) in order to reduce the water flow.
- Use detergents and cleaning products that do not contain harmful chemicals: no matter how you wash your clothes and home, chemicals in cleaning products will find their way into the ground water or waterways!



Rain water harvesting by Thai Red Cross, 2009

Energy

Whether you have the resources to invest in renewable energy or not, being careful in the way we consume energy should be our priority!

- Only buy LED lightbulbs – they last longer and help make electricity savings in the medium to long term.
- Painting your office or warehouse roofs in white helps keep the indoor temperature cool and reduce the need for air conditioning in hot countries. This can lead to a decrease of between 20–50% in your energy costs.³⁸ Read [here](#) about the benefits.
- Monitor water and electricity consumption on a monthly basis to analyse consumption and detect potential leaks/unsealed windows.
- Control leakage of refrigerants from AC units (as these gases are very toxic and damaging to the environment), replace refrigerants with less polluting gases³⁹ and change filters regularly as AC systems need more energy when filters are dirty and clogged.
- Limit AC and generator use to when strictly necessary (e.g. switch it off during lunch break). Close all windows and doors when AC is turned on, and. Prioritise fans over AC: they are cheaper to run, consume much less energy and do not leak hydrofluorocarbon gases.
- Turn off lights and appliances at night and when not in use – do not leave them on standby.
- Programme the temperature of the water heater around 60°C. This will allow you to reduce energy consumption by not keeping your water unnecessarily hot.

³⁸ [Climate Action Accelerator](#)

³⁹ Replace refrigerants with low-warming hydrofluorocarbons (HFCs)/new cooling agents/non-HFC substances

GOING A STEP FURTHER

- When selecting new office or warehouse premises or when renewing an existing rental contract, consider potential environmental improvements (i.e. solar energy, shading with trees or pergolas, rightsizing of the generator etc.) that can be made.
- Raise awareness in your office on environmental issues, be a champion of best practices and send your story [here](#) for others to benefit from.
- Switch to a renewable energy electricity provider at your office and /or warehouse if the option exists.
- Buying 'energy star'-certified equipment (computers, smart phones⁴⁰ etc.)
- Consider installing a solar energy system to provide for some (or all) of the energy needs. This will help lower your carbon footprint, save money, but also can give a more reliable electrical supply. Although finding funds to invest in solar energy can be challenging, there are ways to go about it. You can split costs across different project proposals, or consider renting [equipment](#) to avoid the need for initial upfront investment.
- Maximise energy efficiency in offices and other premises i.e., improve the building 'insulating envelope' (to prevent drafts and reduce heat transfer between inside and outside).
- Measure the carbon emission footprint of your organisation, and start to track how you reduce it (see section v below for tools to help you do this).

⁴⁰ Consider using [fairphone](#)

⁴¹ American Red Cross, Australian Red Cross, Costa Rica Red Cross, British Red Cross, Spanish Red Cross, Swedish Red Cross, and the ICRC, ACTED, Groupe URD, ALIMA, NRC etc.

ICRC Niger built a new energy efficient warehouse to help keep the building cool in a country where temperatures are very high and the electricity supply is unstable. The warehouse was built using local technology and materials: using stabilised earth bricks, double walls with space between containing rice husk bags, double false ceiling, with a layer of glass wool on the first ceiling etc. This new green building is kept cool without having to use large air conditioners, therefore saving fuel and reducing emissions. Read more [here](#) page 42.

Calculating carbon emissions of humanitarian organisations and setting carbon reduction targets

A number of organisations⁴¹ have committed to halving their carbon emissions by 2030, in line with the global commitments made in the 2015 Paris Agreement on Climate Change and by our sector in the [Climate and Environment Charter for Humanitarian Organisations](#). Along with many National Societies, the IFRC-Secretariat is finalising in 2023 the measurement of its carbon footprint baseline using the new [Humanitarian Carbon Calculator](#), and will then develop a decarbonisation roadmap.

Reaching ambitious reduction targets requires:

- a regular process for carbon accounting to be established
- an action plan for reductions to be achieved
- a solid monitoring system
- significant behaviour changes.

Read [here](#) more information on the decarbonisation roadmaps of various organisations including MSF, ALIMA, and ICRC.

GOOD PRACTICES FROM THE SECTOR

- The South Sudan Red Cross has installed solar panels in their Tong Branch. In this very remote office, solar panels help sustain access to electricity throughout the day and are also used as an income generating activity for the branch (e.g. charging phones, batteries, and other devices).
- In 2019, The Bahamas Red Cross Society invested 70,000 USD in a solar system to power its HQ electricity needs. The investment was made as part of the Hurricane Dorian Emergency Appeal, and payback of the investment is estimated to be 5 years, after which the Bahamas Red Cross will start to make savings! See video [here](#)
- The Green Response focal point of the Bangladesh Red Crescent is raising awareness on environmental issues at the office with these signs (see image).

- The Myanmar Red Cross Society launched a green competition to improve waste management in the office ([read here](#))
- ICRC’s office in Douala, Cameroon, organises a weekly 1-hour awareness-raising session and discussion with staff on environmentally friendly actions at the office. This helps to promote behaviour change and is a great team building exercise. [Read here.](#)
- ICRC replaced the 540 light bulbs in their Logistics Centre in Nairobi to LED bulbs. This resulted in a saving of 9,000 USD in energy bills per year, and the investment paid back in less than 2 years. Watch the video [here](#).
- The Costa Rica Red Cross has a dedicated environmental management policy introduced as part of the national Bandera Azul Certification, a Green Label Office Certification.
- The Norwegian Red Cross developed a tool to calculate carbon emissions of their emergency field hospital. Access the tool [here](#) and the [report](#) explaining the methodology used as well as the findings.
- The British Red Cross has been committed to reducing its carbon footprint for a number of years now. It has managed to reduce by 52% emissions linked to their premises thanks to various improvements funded by an environmental performance improvement fund. Read more about the BRC’s [commitments](#).



Bangladesh Red Crescent posters for behaviour change in the office.

WHAT CAN HELP YOU MAKE A CHANGE

- **Want to raise awareness on water consumption?** Here are two posters which you can print and put up in your office ([here](#) and [here](#)).
- **Want to save energy at your office and raise awareness among your colleagues?** Check out this [poster](#) on energy savings which you can print or use to develop your own awareness-raising poster.
- **Need a simple checklist on how to 'green' your office?** The Swedish International Development Agency (SIDA) has developed this [short checklist](#).
- **Want to transition your office away from fossil fuels to more renewable energy?** The [solution](#) hub of the Climate Action Accelerator has many resources to help you better understand what this means and what simple actions you can take. See here for easy to understand 1-hour [webinars](#).
- **Want to encourage green practices in your office cafeteria?** Here are some [tips](#).
- **Want to calculate your carbon emissions?** ICRC has led an inter-agency project to develop a carbon accounting tool. To find out more about the humanitarian carbon calculator, visit the [HCC website](#). There is also a simple online carbon footprint calculator (for awareness raising purposes) which Spanish Red Cross has produced: see here for [REDuction](#), available in multiple languages.

ECO-FRIENDLY AID ORGANIZATIONS RAISING OUR GAME ENERGY

Fossil fuels produce 38 times more emissions than solar energy

- At the office, wherever possible, choose renewable energy
- Turn off computers, air conditioning, heating, lights and unplug chargers when they are not in use.
- Raise awareness within your organization
- Measure impact and track progress using carbon footprint analysis
- In the field, choose alternatives to fossil fuel generators (hybrid generators, solar installations, or other renewables)
- Adopt an environmental charter or policy for sustainable energy consumption
- Lower temperature settings for heating and raise temperature settings for air conditioning. Changing temperature settings by 1°C helps reduce annual energy consumption from 5 to 10%.

RESPECT THE PRINCIPLE OF « DO NO HARM » | CONTRIBUTE TO EFFORTS TO LIMIT THE CLIMATE CRISIS | PRESERVE THE ECOSYSTEMS ON WHICH COMMUNITIES DEPEND

care | UN environment programme | OCHA | JOINT ENVIRONMENT UNIT | TOGETHER FOR A BETTER RESPONSE | UR

How can we encourage behaviour change?

Changing our behaviour to adopt greener practices is critical to tackling the environmental and climate crises. This behaviour change needs to start with us - not only through work in our operations and programmes, but making changes in how we do things in our offices, branches, and homes. Small changes in our behaviour can go a long way to reducing our carbon footprint and setting an example for others to follow.

When encouraging behaviour change among staff and volunteers in offices, branches and other premises, bear in mind these key principles:

- **Analyse why people are not adopting greener practices, and adapt your approach accordingly:** If it's hard to change a behaviour - for example if people are not following advice to turn up the temperature on the air conditioning - try to understand why they are not following this advice. Do they understand the massive impact that this has on the carbon footprint of the office? Do they understand why reducing the office's carbon footprint is important? Once you understand why people have undesirable behaviour, you can adapt your approach and messaging to them to achieve greener results.

- **Use a range of approaches to effectively change behaviour:** There are many approaches to change behaviour to have environmental benefits and it will always be most effective to use multiple approaches. For example, in the office you could use a combination of education - posters and reminders about greener practices and why they are important - coupled with competitions or other incentives to encourage staff to adopt the changes. You can also get senior management or other champions in the office to promote the greener practices, leading by example.
- **Make it as easy as possible to make the change:** The easier a change is to make, the more likely we are to make it. For example, you can make the desired change the default, such as setting printers to print double sided or placing recycling bins in convenient locations.



Volunteers install recycling bins. © Palestine Red Crescent Society