NEWSLETTER

SEPTEMBER 2025

SUSTAINABLE SUPPLY CHAIN COMMUNITY

SSCA HIGHLIGHTS OF THE QUARTER

UPGRADED VERSION OF THE HUMANITARIAN CARBON CALCULATOR (HCC+)

The HCC+ **(Humanitarian Carbon Calculator)** was launched in September last year on the Humanitarian Carbon Calculator page of the Climate Charter website. We started tracking downloads of the tool in mid-April 2025 and the results are encouraging, with around 50 people having downloaded it by the end of May. This is a clear indication of the growing interest in the topic and need for such a tool within the sector. It underlines the importance of working together to expand the project's reach – supporting organizations with data collection and in developing effective decarbonization roadmaps.

To this end, the Climate Action Accelerator (CAA) has been actively seeking funding to take the project to the next level. However, following the withdrawal of support earlier this year by USAID, which had initially backed the proposal, the CAA has had to explore alternative funding opportunities to ensure the humanitarian sector can move forward in a coordinated way – improving how we measure emissions, focusing on reduction efforts and sustaining the vibrant community of practice that many of you are already part of.

Until funding is secured, the CAA will host the Microsoft Teams community related to the HCC carbon account. Comprising more than 100 members from various organizations the community of practice has primarily relied on a collaborative learning-by-doing approach. We hope that, with the Accelerator's expertise, we will gradually enhance the maturity of carbon accounting and start to focus on the reduction journey. If you would like to be part of this community, please email cgarciaduro@icrc.org.

DID YOU KNOW?

You can access all information about SSCA initiatives via the ICRC Logistics sustainable supply chain web page.

Please don`t print the document unless you really need to. Be green

SUSTAINABLE PROCUREMENT

Life-cycle analysis of 13 key humanitarian items

The International Committee of the Red Cross (ICRC) has launched a project in collaboration with the CAA and the École Polytechnique Fédérale de Lausanne (EPFL) to develop tailored methodologies for and conduct life-cycle analyses (LCAs) of high-impact items used in the humanitarian sector. The aim of the project is twofold: to create a greenhouse gas (GHG) emission factor and environmental impact database specific to humanitarian operations, and to identify key strategies for reducing environmental impact. The items analyzed were:

- Mattresses
- Soap bars
- High thermal blankets
- Jerrycans – 20 l foldable
- Plastic buckets – Oxfam variant
- Plastic floor mats – sleeping mats
- Mosquito nets
- Solar lamps*
- Hygiene kits
- Hygiene pad
- Face masks*
- Coveralls
- Ready-to-use therapeutic Food (RUTF)*

**Items based on existing LCAs, reviewed and adapted to our context.*

The LCAs were conducted by the EPFL and the CAA, with input from an expert advisory group. Clear conclusions were reached for each item and the key findings can be summarized as follows:

- **Durability is crucial:** extending the lifespan of products can significantly reduce both environmental and human impacts.
- **Recycled materials:** using recycled plastics can reduce impact, but only if durability remains unchanged.
- **Renewable energy:** its use in the production of items has a significant impact, particularly for plastic-based products or textiles manufactured in countries with carbon-intensive electricity grids.
- **Sustainable design:** producing more sustainable items could reduce costs, as this generally involves using fewer materials and, therefore, less production effort and need for transportation.
- **Transport and packaging:** transporting items by sea and road has a lower impact than doing so by air. Packaging contributes little to emissions but poses a higher risk of localized pollution.
- **Actionable change:** while not all LCA recommendations are immediately feasible, there is clearly potential to make meaningful, practical improvements.

FOR MORE DETAILS

To see details about the life cycle assessments, explore this page.
Click here to explore webinar recordings of experts sharing LCA results.

Eco-design tarpaulin

The ICRC has worked closely with its two suppliers for more than a year to ensure the suppliers meet the eco-design tarpaulin required specifications and quality standards. Compared with the tarpaulin currently in use, the new version:

- Uses 14 per cent less plastic
- Contains 15 per cent recycled plastic
- Is twice as strong and
- Reduces CO_2 emissions by 20 per cent.

We are delighted to announce that the eco-design tarpaulins are now ready and set for distribution in the second half of this year.

While the development process took time, we are fully confident that the tarpaulins being produced and distributed are exactly as we requested. Durability remains the cornerstone of sustainability and ensuring that items last longer is one of the most effective ways to reduce environmental impact.

To achieve real change, the humanitarian sector must not only push for more sustainable specifications but also ensure that the products delivered meet them.

MAKING RENEWABLE ENERGY CRITERIA PART OF PROCUREMENT

As a pilot initiative, the **ICRC has incorporated renewable energy criteria into its process for selecting blankets**. The move follows a finding by the LCA project (see above) that using renewable energy in the production of blankets can reduce emissions by up to 32 per cent and by between 8 and 20 per cent in the case of other essential household items (EHIs).

The ICRC has signed framework agreements with three blanket suppliers that use renewable energy (ranging from 32 to 56 per cent). On average, this results in a **CO_2 reduction of 14 per cent per blanket produced**. Based on the positive results of the pilot, renewable energy criteria will be applied to all EHIs.

As indicated by the LCA, the renewable energy approach supports more sustainable purchasing practices, reduces environmental impact and promotes better outcomes for human health.

If more humanitarian organizations were to adopt this approach, it would prompt more manufacturers to make the switch to renewable energy, leading to large-scale reductions in emissions, regardless of who the end buyer is.

COLLABORATIVE PROJECT TO MAKE RICE PROCUREMENT MORE SUSTAINABLE

The ICRC has launched a project with the World Food Programme (WFP), Help Logistics and the Sustainable Rice Platform (SRP) to explore how to incorporate sustainability more effectively into rice procurement in humanitarian operations. Rice is a staple food in the humanitarian sector, but it is also linked to high environmental impacts, including methane emissions, water use and land degradation. This new initiative aims to assess the environmental footprint of rice production through a life-cycle assessment, working closely with millers, cooperatives and farmers in key sourcing regions.

The goal is to build a data-driven sourcing framework that reduces environmental impact without compromising food security. This will help identify farming groups already working towards more sustainable practices and provide a clear path for improving production systems where needed.

Key objectives:

- Understand the environmental impact of rice production across different regions and farming systems
- Define actionable sustainability criteria relevant to humanitarian rice sourcing (e.g. water, energy and GHG emissions)
- Explore realistic options, such as segregated sourcing or mass balance models to procure sustainable rice in the future.

Though the SRP typically focuses on premium rice, it will support this project by providing guidance on common rice varieties used in humanitarian aid, such as IRRI-6 and IR-64.

By the end of 2025, the project aims to deliver practical procurement recommendations and identify pathways to improve the sustainability of rice supply chains – the first steps in the long journey towards being able to purchase and produce more sustainable rice through our agricultural projects.

BEYOND RICE: EXPLORING LOCAL, SUSTAINABLE ALTERNATIVES

Over the past few years, the ICRC has been exploring the possibility of replacing rice with more locally appropriate and sustainable cereals. In Sudan, 100 per cent of rice distributed has been successfully replaced with sorghum, which has a higher nutritional value. The change has resulted in:

- 30 per cent cost savings
- a 90 per cent reduction in CO_2 emissions
- enhanced local agricultural production.


ICRC

A similar approach is being implemented in Mali, where assessments are ongoing to determine where such substitutions with local cereals would be both feasible and accepted by communities. The plan is to gradually implement it in more countries when feasibility and acceptability are confirmed. You can find more information in this article.

If your organization is already working on similar efforts, please get in touch. Together, we can create a bigger impact.

MAXIMIZING VALUE: SUSTAINABLE PRACTICES IN BIOMEDICAL/LAB EQUIPMENT PROCUREMENT

The sustainability of biomedical and laboratory equipment has long been a key concern for the ICRC. The World Health Organization (WHO) estimates that between 40 and 70 per cent of medical equipment donated in low- or medium-income countries is inoperable, often because of poor needs assessments or lack of spare parts, maintenance, training, or local technical capacity. Applying these percentages to the ICRC's budget for 2022 to 2024 suggests that between 19 and 33 million Swiss francs were wasted on unusable medical equipment.

To raise awareness, the ICRC produced a video aimed at encouraging stakeholders to be more responsible and collaborative with regard to medical donations. You can watch the video to learn more about this initiative here.

In practice, the ICRC has amended its strategy to prioritize **suppliers with a global reach** who can deliver directly to countries of operation, ensuring local **availability of spare parts and maintenance**. Currently, **30 per cent of ICRC suppliers** are following this sustainable model **after-sales service** is now included in **80 per cent of the ICRC's global standards**, which helps extend the life of equipment, reduce waste and costs, and build local capacity.

Why this approach works?

Spare parts may raise upfront costs by 20 per cent but can increase equipment usage and value by between **300 and 400 per cent through extended functionality and service continuity**. It shifts the focus from donation to **long-term health-system strengthening**. Equipment lifespan can be extended by **between two and seven years**, cutting annual costs by more than **70 per cent** through strategic investment in maintenance.

SUSTAINABLE MEDICAL DONATIONS ARE THOSE THAT WORK – AND LAST.

SUSTAINABLE TRANSPORT

Sustainable transport involves using environmentally friendly and socially responsible modes of transport to minimize environmental impact. However, achieving this requires a holistic approach involving the requesters.

For more than a decade, the ICRC focused on improving forecasting and demand planning by fostering collaboration between supply-chain teams and colleagues who order goods. This coordination ensures there is sufficient time to select the most appropriate mode of transport. As a result, most ICRC goods are now transported by sea, with only about 10 per cent (in terms of weight) shipped by air from Geneva.

The most effective way to reduce transport emissions is to minimize the use of air transport: sending goods by sea instead of by air results in around 90 per cent fewer emissions. While shipment of some products, such as small medical deliveries, by air are unavoidable, the ICRC has been actively exploring alternative solutions, including reducing the distance travelled for essential air shipments.

Greener transport: ICRC initiatives to reduce environmental impact

In close collaboration with its Transport, Clearance and Freight Solutions Unit, the ICRC has implemented a range of measures to reduce the environmental footprint of its logistics operations:

- **Prioritizing sea and rail transport:** routes are constantly reviewed to favour transport by sea and rail, whenever feasible. For example, in *Ethiopia, using rail to transport goods* is now best practice.
- **Optimizing the pick-and-pack process:** at the main ICRC warehouse in Satigny, near Geneva, orders are now picked and packed by destination and country, rather than by order of arrival. This enables more consolidated shipments, reducing the number of consignments and the need for air transport, and improving transport efficiency.
- **Defining the mode of transport upfront:** clear internal guidelines have been established to help supply-chain teams in Belgrade select the appropriate mode of transport.
- **Maximizing container use:** full containers are prioritized over partial containers to maximize efficiency. A study conducted through the Sustainable Supply Chain Alliance (SSCA) project analyzed transport data from four countries with high levels of air freight. It concluded that even when containers are only half-full (reefer or non-reefer), shipping them by sea is still more cost-effective. While this approach may lead to longer lead times, which need to be taken into consideration when planning, it reduces CO_2 emissions by approximately 95 per cent, depending on the container type.
- **Reducing air freight through direct sea shipments:** with support from the supply-chain team and thanks to forecasting efforts, regular container shipments to specific destinations have been introduced. This initiative has significantly reduced the volume of goods transported by air.
- **Reducing emissions by choosing direct flights:** a new tool integrated into internal systems helps select transport options based on total distance travelled, not just cost. This system considers the kilometres travelled based on the chosen airline and the hub used to reach the destination from Geneva. When direct flights aren't possible, shorter combined routes are prioritized to minimize emissions.

Currently, the ICRC does not pay additional costs for direct shipping. However, data gathered throughout 2025 will enable more precise cost-benefit analyses. Initial findings indicate that in some cases, prioritizing shorter routes or direct options does not significantly increase costs and can sometimes be cost-neutral or even cheaper. As a result, adjustments have already been made where feasible, demonstrating the potential for sustainable practices without major financial implications.

QUALITY, SOCIAL AND ENVIRONMENTAL WORKING GROUP

The QSE group (comprising the ICRC, International Federation of Red Cross and Red Crescent Societies, International Organization for Migration, Médecins Sans Frontières, the UN Refugee Agency (UNHCR), the UN Humanitarian Response Depot (UNHRD) and UNICEF) has finalized the unified specifications for tents, blankets and mats. This follows the group's approval of the eco-design tarpaulin (see above) last year. All specifications can be found in the IFRC/ICRC catalogue.

In addition, a joint factory audit tool is in use. It is currently being revised to strengthen its environmental criteria, with a view to ensuring that sustainability is more effectively incorporated into the quality and compliance process.

WASTE MANAGEMENT: MICROWAVE STERILIZATION TECHNOLOGIES FOR MEDICAL WASTE

The ICRC has piloted Sterilwave, a microwave-based technology designed to sterilize infectious and hazardous medical waste in an environmentally safe and operator-friendly way. Sterilwave technology combines shredding and microwave sterilization in a single 100l vessel using a fully electric process. It achieves up to 6 $\log_{10}$ bacterial inactivation and is especially suitable for small medical facilities, such as vaccination centres.

The Sterilwave process takes just 30 minutes and offers the following advantages, especially when applied in field hospitals deployed as part of a humanitarian response:

- Waste segregation by medical staff is not required.
- The process produces a dry and harmless waste base that is safe to dispose of with non-hazardous waste.
- Lower risk of cross-contamination (for the environment and for staff).

It reduces waste volume by 85 per cent and waste weight by 25 per cent, meaning it requires less storage space and costs less to transport.

TRAINING

EXCITING NEW COURSES IN SUSTAINABLE AND HUMANITARIAN LOGISTICS

We are thrilled to announce the launch of two new online courses designed to enhance your skills in and knowledge of sustainable and humanitarian logistics. These courses are brought to you by leading organizations in the field and offer valuable insight and practical knowledge to help you make a greater impact.

Environmentally sustainable humanitarian logistics MOOC

Course overview: the WREC Coalition – the Logistics Cluster's Environmental Sustainability Team – has developed, in collaboration with Help Logistics and Save the Children, a new massive open online course (MOOC) on environmentally sustainable humanitarian logistics.

Designed for humanitarian supply-chain professionals and suppliers, this course brings together the most relevant and up-to-date information on supply-chain sustainability.

What you will learn: this course comprises eight stand-alone modules, each combining theoretical content, practical exercises and real-life case studies. Designed to deepen your understanding of environmental sustainability in humanitarian logistics, the course will equip you with the knowledge and tools to implement sustainable practices and mitigation measures – helping reduce the environmental impact of humanitarian operations.

You can take any individual module, a customized combination, or all eight to complete the full MOOC. The modules cover:

- Supply-chain planning and advocacy
- Procurement and sourcing
- Freight
- Warehousing
- Distribution and fleet
- Reverse logistics
- End-of-life management
- Facilities.

Certification: you will receive a certificate of completion for each module. Upon finishing the course, you will be awarded a course certificate validating your new skills and knowledge.

Registration: to register for this course, go to: WeLearn. Note that you must be logged into WeLearn to access the course via this link. If you do not have a WeLearn account, you can register for one for free. If you have any questions or encounter any problems registering, please contact: Global.WREC@wfp.org.

SUPPLY-CHAIN PLANNING COURSE

Course overview: developed by HELP Logistics and Save the Children International, with support from Amazon, this online course focuses on supply-chain planning in humanitarian and development operations. It is designed to equip you with the skills you need to optimize your supply chain and make informed decisions.

What you will learn:

- Fundamentals of supply-chain planning
- Key steps across strategic, tactical and operational levels
- Best practices for demand and supply planning
- Techniques to improve collaboration and decision-making processes

Who should attend: this course is ideal for supply-chain professionals, programme managers, finance leads and anyone involved in logistics.

KEY DATES

Course start date: 23 September 2025
Registration deadline: 21 September 2025

Registration: secure your place today by going to the Registration Link. Registration takes the form of a survey; once registered, you will receive an email and have access to the training material.

WHAT'S NEW IN THE FIELD: ACROSS THE INTERNATIONAL RED CROSS AND RED CRESCENT MOVEMENT GREEN RESPONSE QUARTERLY MEETINGS

Two Green Response Quarterly Meetings were held, focusing on various initiatives and experiences in the field of climate and environmental sustainability across the Movement. If you would like to know more about the topics presented, please check out the recorded presentations.

The recording of and presentations from the meeting held at the end of 2025 can be found here.
Simon Dorielle, Netherlands Red Cross in Zambia – Installation of solar energy at the Zambia Red Cross Society HQ.
Richard Casagrande, IFRC – Exploring carbon finance opportunities for National Societies.
Gustavo Hernandez, CREPD (Reference Centre for Disaster Preparedness) – Integrating climate and environmental considerations into the PER process in the Americas.
Arifur Rahman, IFRC Bangladesh, and Lutfor Rahman, Bangladesh Red Crescent Society – Advancing sustainable procurement practices in Bangladesh.
Juan Galvez, IFRC – New IFRC Secretariat partnership to support decarbonization efforts.

The recording of and presentations from the meeting held on 11 June 2025 can be found here.
Alex Machado, IFRC WASH and Robert Gensch, German Toilet Association – Compendium of solid waste management in humanitarian contexts.
Alex Jacoby, Luxembourg Red Cross – Sustainability initiatives in Chad and other West African National Societies.
Richard Casagrande, IFRC – Establishing a Green Response code of practice on the new IFRC "Communities" platform.
Mathieu Grenade, French Red Cross – Measuring carbon emissions in the Malagasy Red Cross Society; Waste management study by PIRAC.

HAVE YOU MISSED PREVIOUS SSCA NEWSLETTERS?

SSCA Newsletter (September 2024)
SSCA Newsletter (September, 2023)
SSCA Newsletter (March, 2023)
SSCA Newsletter (September, 2022)
SSCA Newsletter (February, 2022)
SSCA Newsletter (July, 2021)

Any questions, suggestions, or feedback can be sent directly to the SSCA project manager: cgarciaduro@icrc.org.

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