



**DRR IN
ACTION
CASE
STUDY**

Greening IFRC supply chains; mapping our GHG emissions

Theme of the Case Study

Green Response /
Enhancing
Preparedness for
Effective Response

Country

Philippines, Nepal,
Bangladesh

Case location

Asia Pacific region

Background

The International Federation of Red Cross and Red Crescent Societies (IFRC) wants to pay better attention to the environmental impacts of Red Cross and Red Crescent humanitarian relief supply chains. In carrying out disaster relief, operations involve significant volumes of procurement and passage of goods and services to reach the most vulnerable people affected. In parallel with a focus to increase investment in sound disaster risk reduction, IFRC has an obligation to prevent and reduce environmental risks through responsible practices and policies.

The Regional Logistics, Procurement and Supply Chain Excellence unit in Kuala Lumpur is leading efforts to improve environmental outcomes by reviewing emergency operations in Asia Pacific. In order to conduct a proper study with operational data for recent and sizable disasters, three countries were selected – the Philippines, Nepal and Bangladesh.

What did the action seek to change?

The project aims to map the present level of greenhouse gas (GHG) emissions generated by humanitarian relief operations of the IFRC and their reduction potential and to implement GHG reduction activities to lower the environmental impact of the emergency operations.

What were the key actions taken to achieve this change?

The project identified existing relevant standards, tools and best practices for managing the environmental impacts of humanitarian relief supply chains, analysed in comparison with IFRC's current practices. The results and gaps highlighted will inform recommendations for changes or improvements. In parallel, the life cycle of main relief items and their transportation has been assessed to draw out a GHG inventory and index.

Photo: IFRC logistician inspecting goods at BDRCS/IFRC Palong Garden Warehouse in Ukhia, Cox's Bazar, Bangladesh – December 2017. | Jess Letch/IFRC

What were the essential steps taken along the process to bring about this change?

Step 1	Scoping of the study, methodology and approach: Define the main relief items to be explored and the IFRC emergency supply chain designed.
Step 2	GHG analysis: Study of the greenhouse gas emissions of the main relief items used in disaster response and their impact along the supply chain from start to end in the three operations.
Step 3	Recommendation and reduction roadmap: GHG emission hotspots identified in the supply chain as well as main potential source of emission reduction in the life cycle of relief items.

What SFDRR principles¹ were applicable to this change process?

- Principle 1 «Build Back Better» for preventing the creation of, and reducing existing, disaster risk.
- Principle 2 Coherence of disaster risk reduction and sustainable development policies, plans, practices and mechanisms across different sectors.

What were the Achievements and the Impacts?

The mapping outputs below contribute to the global emission baseline for IFRC supply chain monitoring, to design the reduction roadmap, and build internal capacity:

1. Established work plan at the start of the project, which clearly indicates the methodology and guide achievement of target outputs efficiently
2. Facilitated the mapping of current typical supply chains and evaluation of current environmental impacts and priorities
3. Identified relevant standards and practices for managing supply chain and environmental impacts of relief operations
4. Conducted market research on available environmental management tools
5. Comparison of commercially available measurement, reporting and verification (MRV) tool capabilities to IFRC requirements
6. Established GHG Inventory of key sectors
7. Developed training materials and conducted workshops on carbon emission assessment and measure progress on reduction
8. Recommendation on best buy sustainability approach for the main relief items
9. Recommendation and report on areas of focus: Manufacturing of relief items, transportation of relief items, usage of relief items, disposal of relief items, fleet
10. Development of a manual for conducting GHG Inventory for sustainability and future preparation of GHG inventories and MRV system implementation;
11. Documented IFRC requirements for environmental management tools and management practices
12. Facilitated the decision to acquire or develop tools



Warehouse worker carrying mosquito nets for truck loading and to be dispatched from BDRCS/IFRC Palong Garden Warehouse in Ukha, Cox's Bazar to distribution point – December 2017. | Jess Letch/IFRC.

¹ e.g. Primary responsibility of the State, Shared responsibility, Protection, All-of-society-engagement, coordination mechanism, empowering local-decision makers, Multi-hazard approach and inclusive risk-informed decision-making, Sustainable development, Local and specific risks.

What were the key Lessons Learnt?

Lessons Learnt	Recommendations
In a global project with cross functional coordination, it is important to appoint environmental champions to ensure effective implementation of green activities, strategies and decision-making across the organization.	This should be considered at higher management level as well as in the technical units.
The Green argument for alternative and environmentally beneficial solutions to address needs is a compelling factor to drive changes internally.	Use the Green perspective to foster cooperation to support change; to break internal silo-mentality and attitude barriers.
There is interest from other humanitarian actors (ICRC, WFP) to join and partner on the approach.	Proposed pilot to concretize this potential synergy.
While some IFRC suppliers have already embarked on environmental awareness, there are varying degrees of sensitivity or willingness across the supplier base studied.	Embark with the most advanced supplier in terms of environmental awareness, to define reduction objectives, and show case to the other suppliers to replicate.
IFRC is very good at collecting data; nonetheless, improvement is needed on the quality of data and to have better data management system to facilitate the extraction and consolidation process. This can be done in two steps →	<ol style="list-style-type: none"> 1. Define the data to be collected and ensure data is captured in one system (avoid crossing source of information); 2. Codify and standardize data entry to avoid multiple redaction form (example: Cox Bazar warehouse, warehouse in Cox Bazar, CB warehouse, etc.)
Great potential for partnering with best in class private sector company.	Identify synergies with corporate sector companies that are eager to support greening strategies for knowledge exchange on supply chain aspects.
Expand the influence on greening our supply chain to tiers 2 and 3 suppliers.	Once a green consciousness is developed with tier 1 suppliers, leverage on the process and spread the approach to the next tiers.

What were the Good Practices arising from this action?

Good Practice 1	Defining the IFRC supply chain emission baseline to measure reduction activities with evidence-based comparative information.
Good Practice 2	Sharing knowledge and results with other humanitarian actors to create synergies and leverages for improving overall humanitarian environmental impact.
Good Practice 3	Aligned approach with international standard and practices (ISO, GHG protocol)

Policy Relevance to DRR in Action

This case study contributes to the **Goal** of the Sendai Framework for Disaster Risk Reduction as it will prevent new and reduce existing disaster risk through the implementation of environmental measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience.

Greening IFRC supply chain supports the Sendai Framework **Targets** to reduce global disaster mortality, number of affected people, economic losses and disruption of basic services. It further supports the **Priorities for Action**, especially priorities 1, 3 and 4.

Key Messages from this Case Study

- This study indicates that a significant share of the greenhouse gas (GHG) emissions of humanitarian operations occur from logistics, as transporting goods to the affected areas has a major role in most response operations. The supply chains of the relief items are often global, and large quantities of goods are transported by air to reach affected people rapidly as per Red Cross priorities, mandate and objectives. By paying attention to transportation routes, storage locations and capacities, as well as expected time of utilization of the goods, substantial emission reductions can be unlocked. This does not only benefit the environment but can also enable significant monetary savings allowing more relief to be delivered to those in need.
- Another aspect related to the environmental impacts has to do with the items procured and supplied. Especially with regards the materials and the source of energy used in the production of the goods having a drastic impact on their carbon footprint. In some cases, the footprint of an item produced using renewable energy can be only a third of a similar one manufactured utilizing fossil fuels. Correspondingly, promotion of renewable and recyclable materials can have a major impact on the lifetime emissions of a single item.

During the analysis of the study there is evidence of similarities among supply chains of humanitarian organizations in regard to environmental impact as well as the activities to reduce them.

By sharing the case study of Greening IFRC supply chain, we encourage other organizations to embark into greening their supply chains and use our results as guidelines to foster their approach and reduction implementation.

References for this Case Study

Carbon efficiency of humanitarian supply chains has been identified – both in practice and in research – as a major gap in humanitarian logistics, but there is still very little study on this.

1. Eng-Larsson, F. & Vega, D. *Green, Logistics in Temporary Organizations: A Paradox? Learnings from the Humanitarian Context*, 2011.
2. Oberhofer, P. et al. *Carbon Efficiency of Humanitarian Supply Chains: Evidence from French Red Cross Operations*, 2014.
3. IFRC, *Green Response Snapshot* 2018



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