

ENVIRONMENTAL IMPACTS OF SHELTER NFI



GREEN RESPONSE



the
power of
humanity



International Federation
of Red Cross and Red Crescent Societies

Why are we considering the environment?

One large humanitarian operation can equate to more than the annual emissions of its host country.

- Haiti's annual carbon emission is about 210,000 tCO₂e.
- Shelter Response alone was almost 200,000 tCO₂e
= Equivalent to what approximately 31.000 ha of tropical forest captures/year*

EMMISSION TO AIR

Airplanes, carrying relief items and personnel, emit greenhouse gases and other harmful air pollutants directly into the atmosphere, compounding the pollutants' warming impact.

PRESSURES ON NATURAL RESOURCES

When responding to emergencies, water use and abstraction, cutting down of trees for shelter and cooking, using metals and oils in transport, construction and other relief activities puts a pressure on the natural resources of the environment.

Environment

LAND POLLUTION

Without safe waste-management systems, landfill, waste and toxic chemicals can have adverse effects on people's health as well as the environment and eco-systems.

WATER POLLUTION

Without safe waste-management systems, plastics, metals and harmful pollutants such as discharges from septic tanks can find their way to the water.

Green Response not about saving the environment, but reducing adverse impact on the environment and ecosystems resulting from emergency response operations.

- Increase knowledge
- Improve systems and processes
- Improve techniques, planning, programming

Saving lives without risking damage to the livelihoods, health and survival of affected people.

'Normal' Response

Green Response

Fly in shelter kits in emergency

Prepositioning and local purchase

Bring in external shelter materials

Build shelters from sustainable, locally available materials

Bring in external specialists to ensure capacity is available

Work with local staff whose technical capacity has been built

Any materials that do the job will do

Materials are chosen taking sustainability and community impact into consideration

Prior to the Emergency Response phase:

- Promote and support long term community DRR/resilience programming, prevention and preparedness
- Engagement with local governments and communities
- Improve systems (logistics and procurement, staff training)

During the Emergency Response phase:

- Impact on the environment should be considered during assessment and planning of any response
- Include environmental impact in the monitoring and evaluation of emergency response operations

Greening the supply chain

IFRC

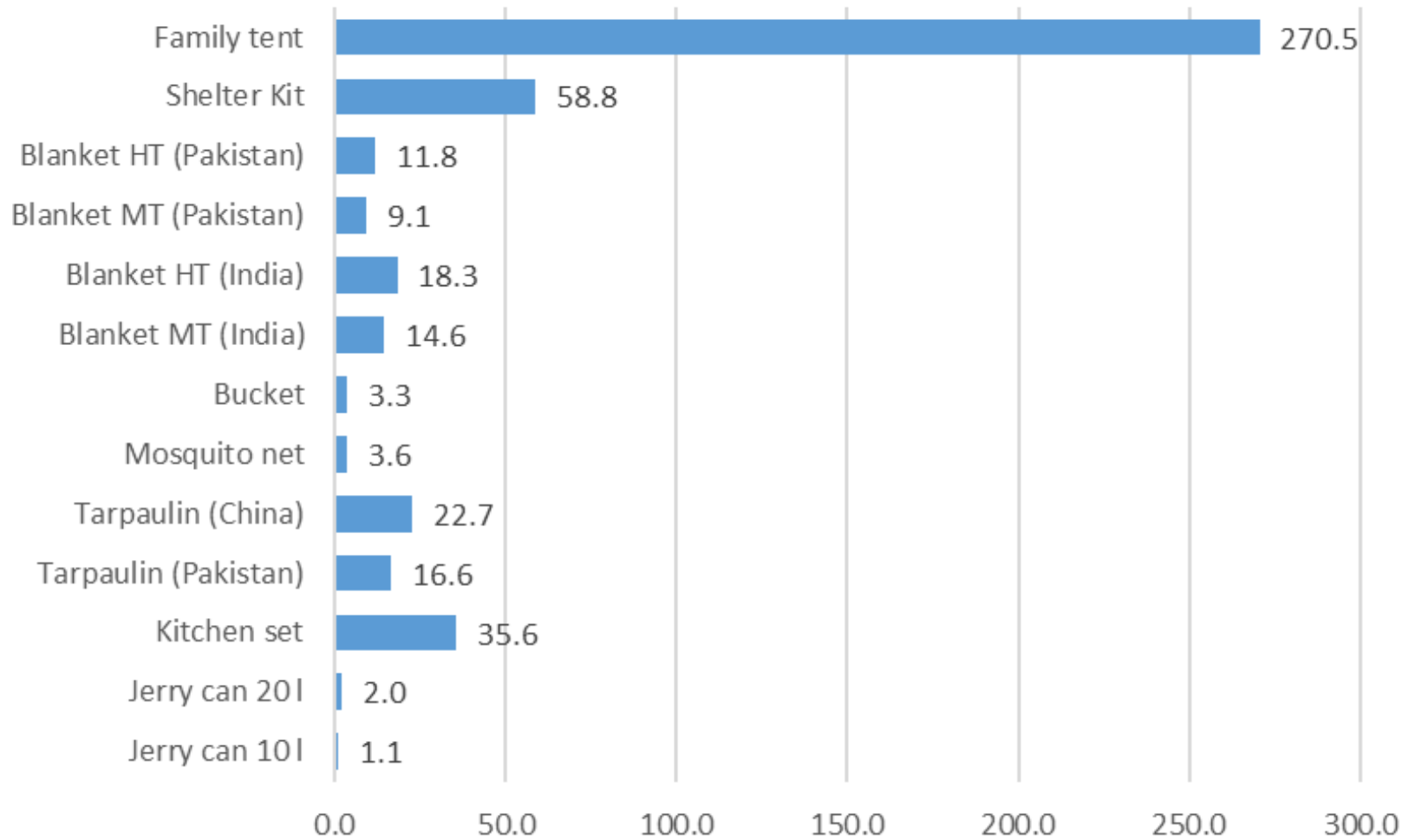


Aim: map the present level of greenhouse gas emissions in the supply chain and their reduction potential.

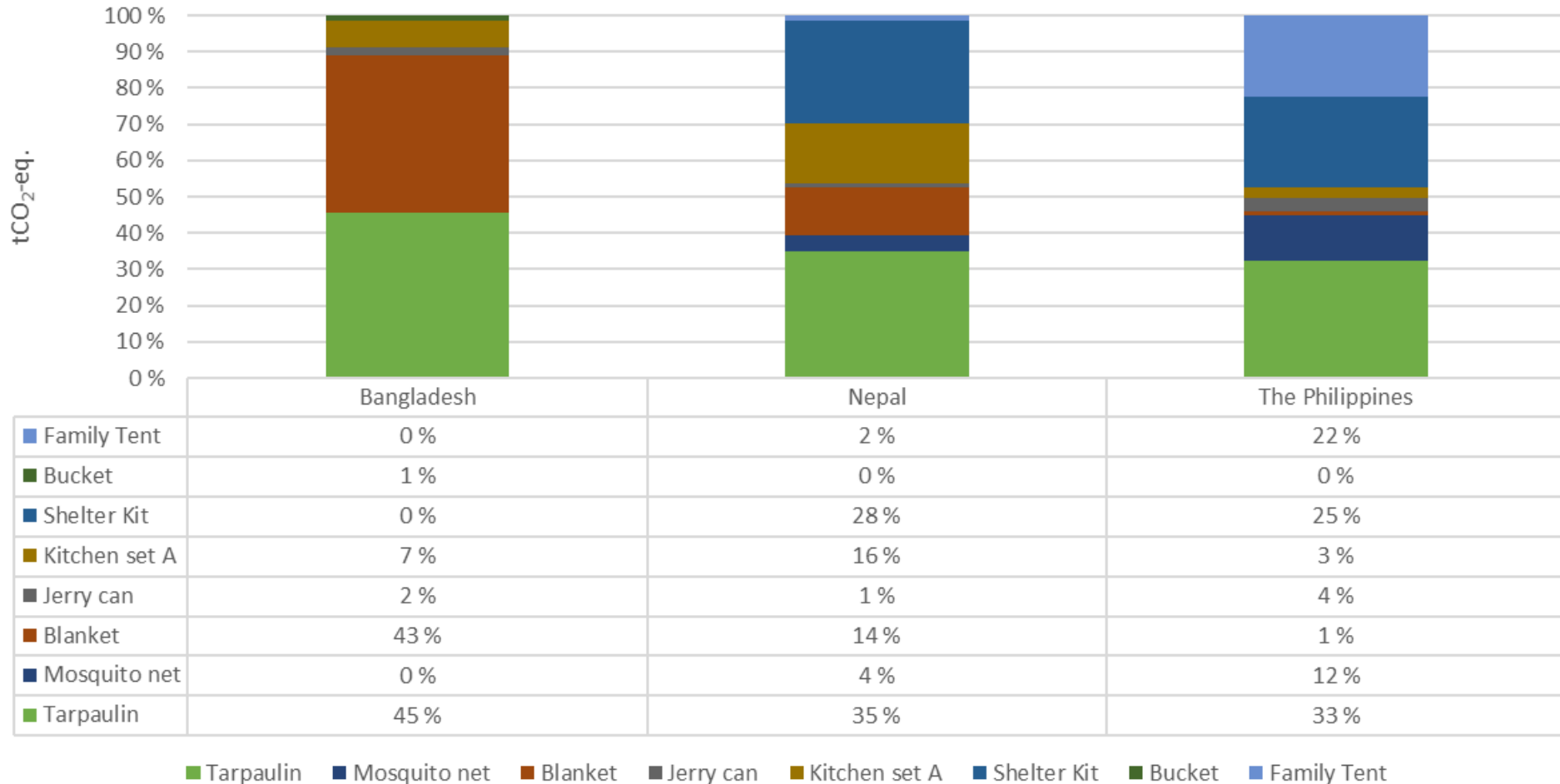
Method: Identify existing relevant standards, tools and best practices for managing the environmental impacts of humanitarian relief supply chains, compare to current practices, and assess the lifecycle greenhouse gas emissions of main relief items and their transport.

Results: IFRC to develop its own set of tools for environmental management of humanitarian relief operations.

Carbon footprint per item



Emission production of selected relief item per operation



Key environmental issues identified in GR S&S investigations

- Unsustainable supply of shelter construction materials
- Inappropriate shelter design for a specific need, site, community or culture, leading to misuse or non-use.
- Unsustainable use of timber in shelter construction.
- Unsustainable use of fuel wood.
- Unsustainable reliance upon active power supplies
- Deforestation, soil erosion degradation.
- Contaminated groundwater through over extraction, and/or improper disposal of grey and blackwater.
- Inadequate disposal of construction and packaging waste.
- Insecurity of land tenure does not promote long term environmental stewardship.

Hariyo Ban Program

Building Material Selection and Use An Environmental Guide



- **Think through the whole supply chain:** *from sourcing raw materials, through processing and delivery to the site (including the social and environmental practices of manufacturers).*
- **Only support sound and legal sourcing of materials**
- **Design to use fewer materials and reduce waste.**
- **Use local sources where this can be done in a sustainable way.**
- **Use disaster debris as a reconstruction material.**
- **Use materials with recycled content and recycle as much as possible.**

LOOKING THROUGH AN ENVIRONMENTAL LENS



Implications and opportunities for Cash Transfer Programming in humanitarian response

Karina Blanco Ochoa, Lauren Harrison, Nicholas Lyon, & Marissa Nordentoft



Recommendations for incorporating environment in shelter programme modality selection

The Global Shelter Cluster must coordinate efforts to **standardise environmental considerations in the modality selection process**, linking to criteria of context, markets and protection through checklists

Implementing organisations should **conduct environmental assessments** regarding the appropriate modality for all inputs in order to choose a modality based on anticipated environmental impact. These may be freestanding, or link explicitly to existing market and/or value-chain analyses.

- The markets involved in construction, housing, energy and related services are part of complex social, economic and environmental systems.
- Many key commodities may have complex back-stories.
- When facilitating access to such commodities either in-kind or when using markets through the provision of cash, humanitarian and development actors need to identify risks and put in place mitigation actions
- Awareness can provide opportunities for meaningful mainstreaming of environmental and protection issues into humanitarian response.

