



Climate Action
Accelerator

Resource

Life cycle assessment results

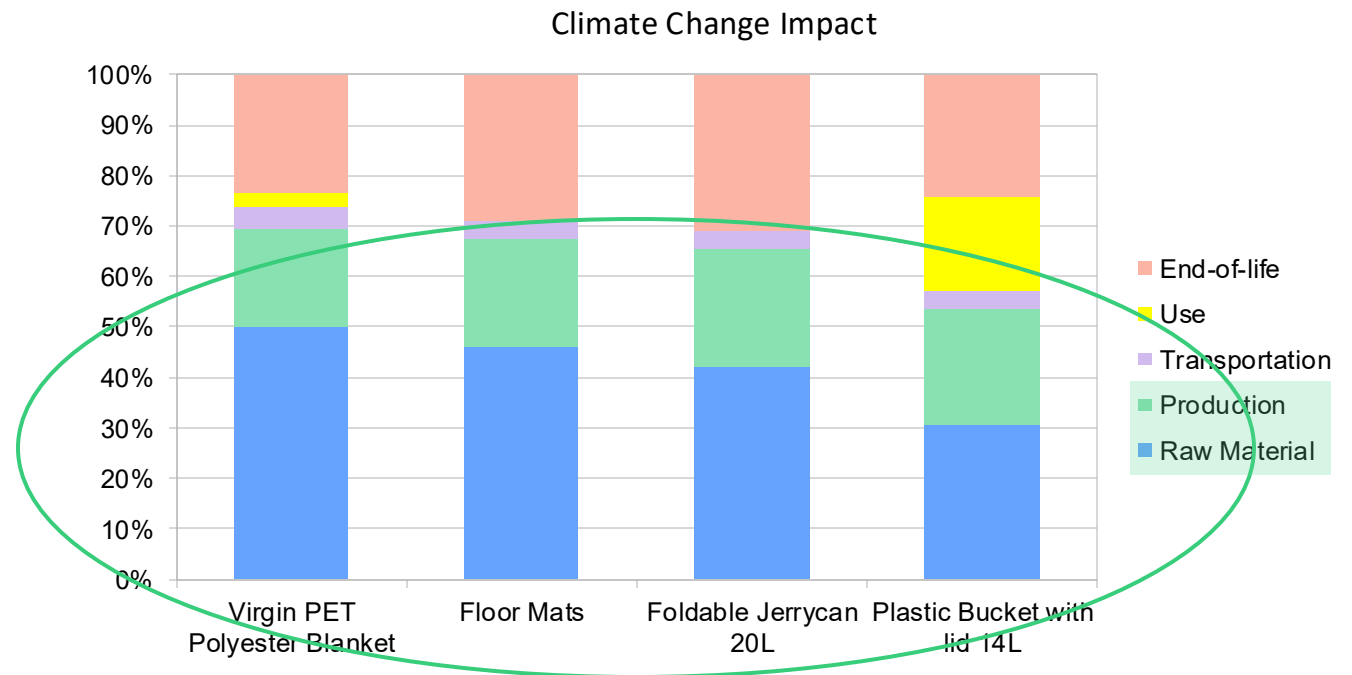
July 2025



LCA Project – Key findings

In general, raw materials and production stage are the most impactful.

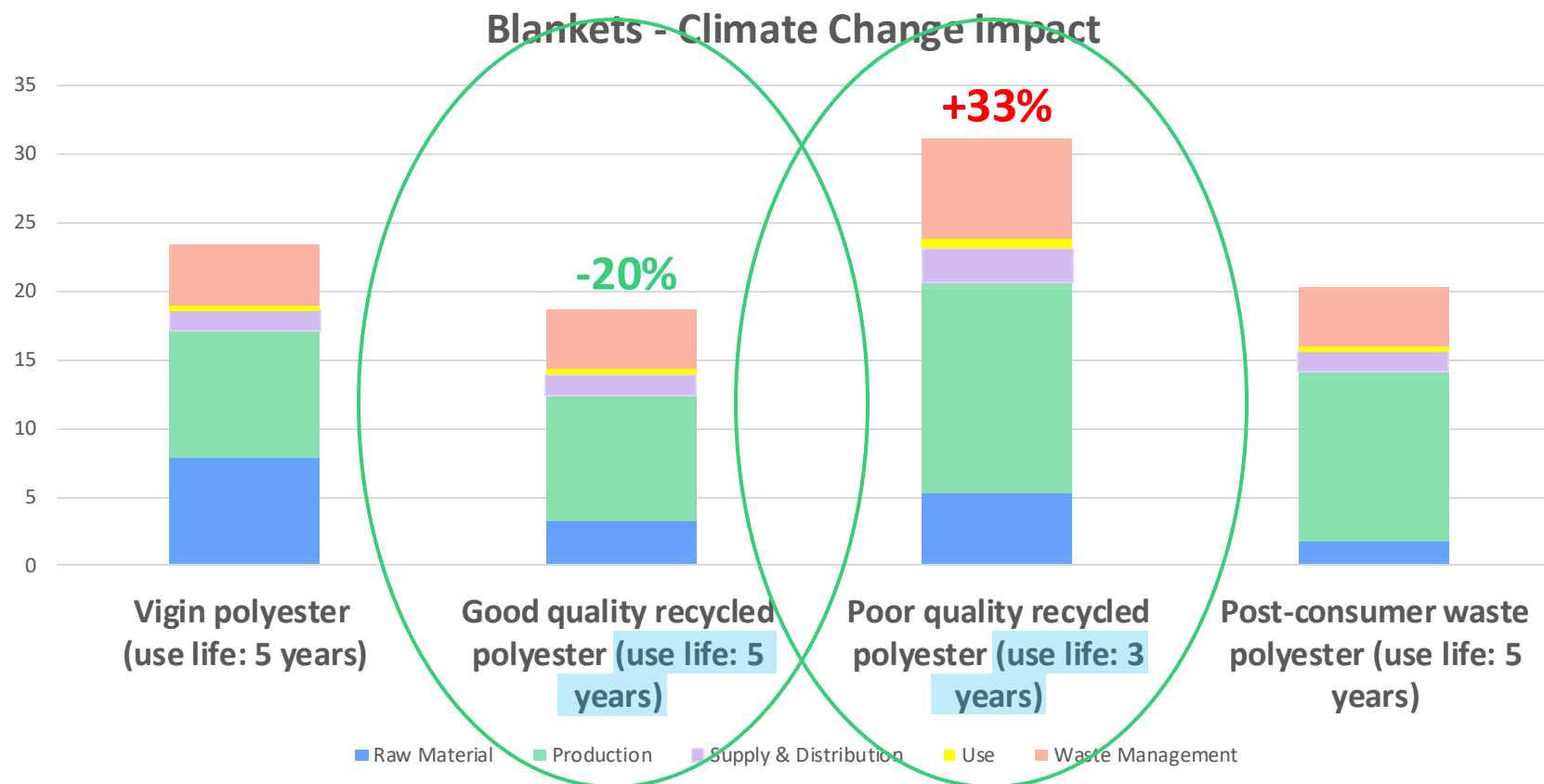
Key lever: Increasing the lifespan of an item (quality, durability, repairability)



LCA Project – Key findings | Materials

Using good quality recycled polyester can reduce the climate change impact by 20% - if the lifespan of the product is maintained.

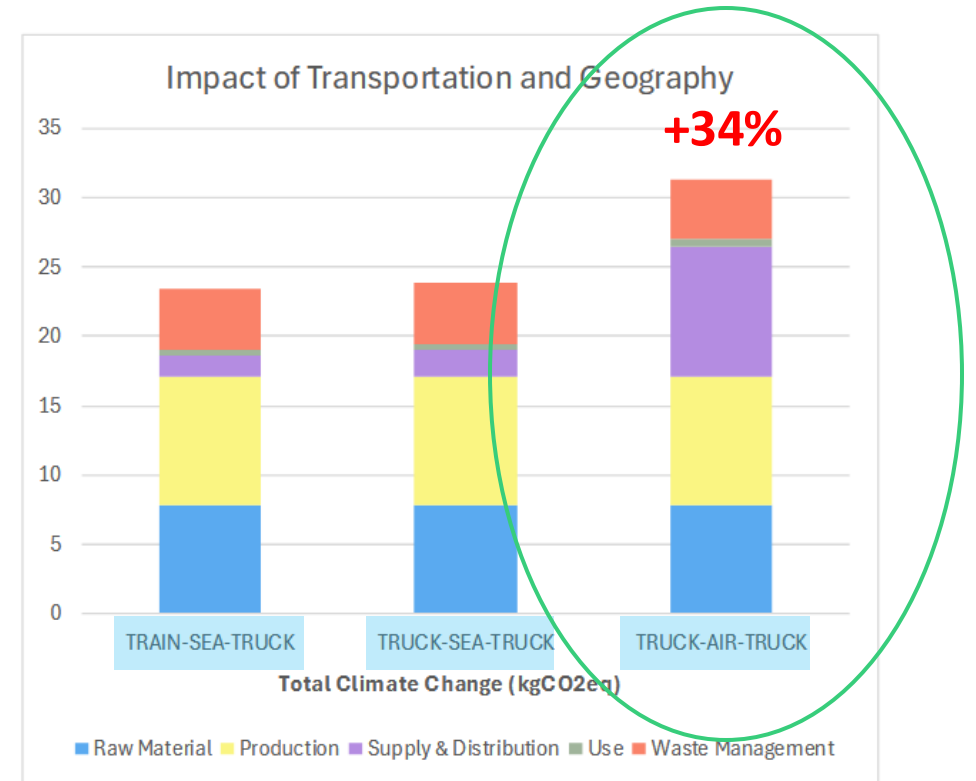
All displayed variations: Average energy mix in the production country (India), train-sea-train transport, open burning.



LCA Project – Key findings | Transport

Transportation is usually a smaller share of the life-cycle impact of any product – as long as the transport is by **sea**.

When using **air freight**, the impact increases drastically and can add up to 30-50% impact to a lightweight product.



Synthetic high-thermal blanket

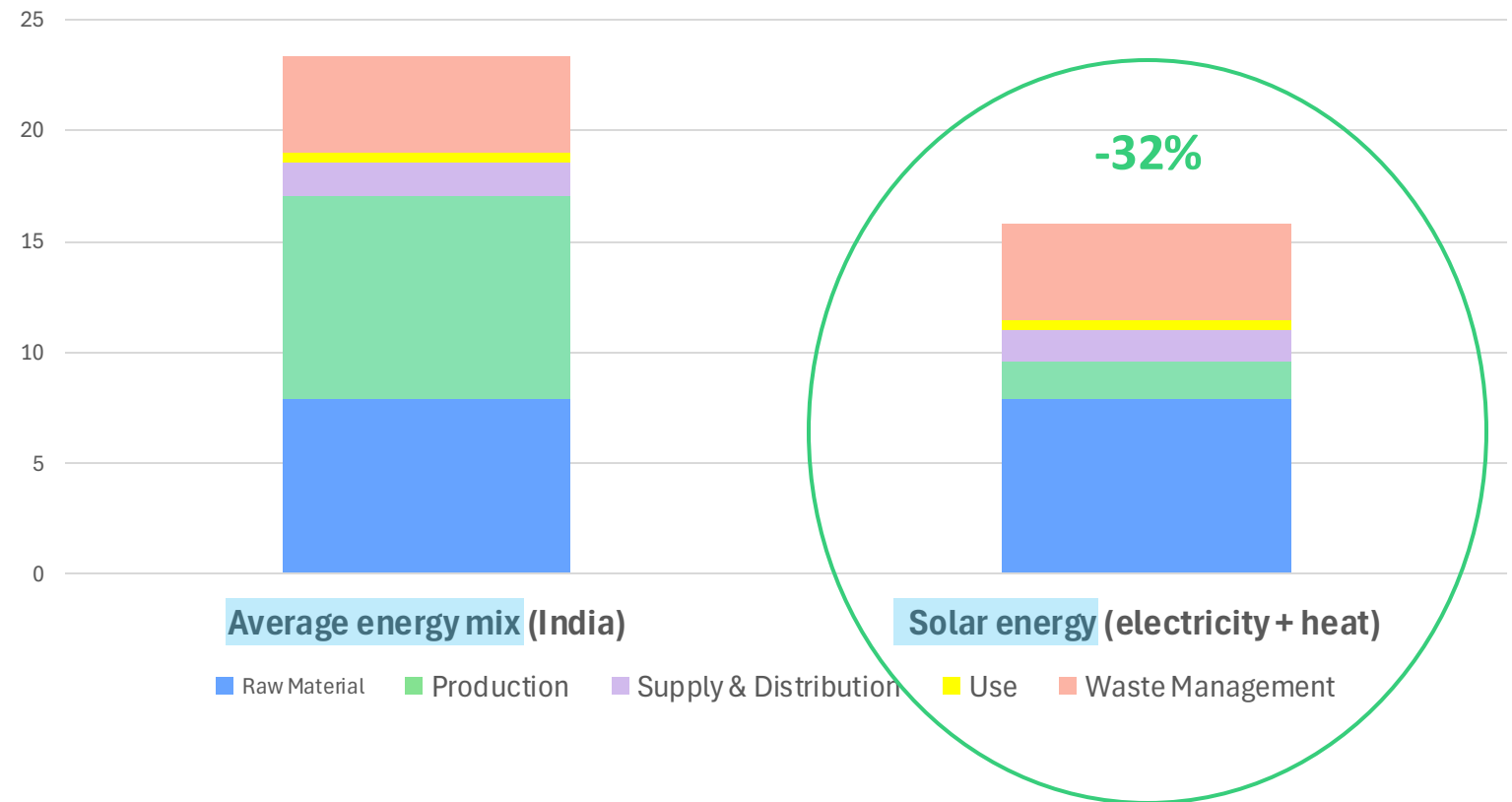
LCA Project – Key findings | Energy (Production)

Using **renewable energy** in the production process reduces the climate change impact in general by 10-20%.

For items with a high share of impact in the production stage, such as blankets, reductions of more than 30% can be achieved across the whole lifecycle.

All displayed variations: Virgin polyester, Train-sea-train transport, open burning

Blankets - Climate Change Impact





Effective emissions and other impact reductions should not result in any reduction in the quality, quantity or timeliness of assistance, but rather should explore ways to reinforce or maintain aid, while identifying low-carbon, sustainable, and resilient alternative options.



LCA repository

Find the full results of the assessments on the Accelerator's LCA repository:

<https://climateactionaccelerator.org/repository-of-lifecycle-assessments/>



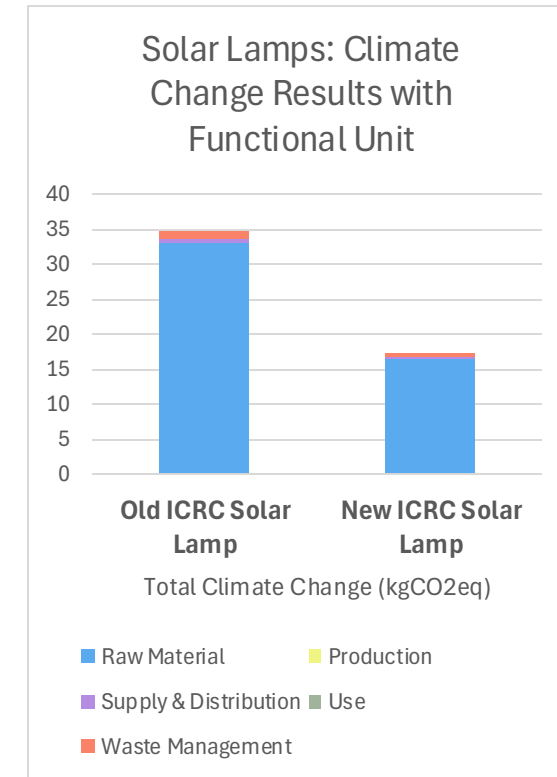
Good practice: ICRC Solar lamp

50% emission reduction through redesign of solar lamps

- Improved durability
- Reduction of volume by more than 50%
- Changes lead to a 50.61% reduction in climate change and 50.80% reduction in human health impacts.

Co-benefits

- ✓ Better serving beneficiaries through longer lasting items
- ✓ Reducing local waste pollution through improved durability and reduction of volume
- ✓ No cost increase



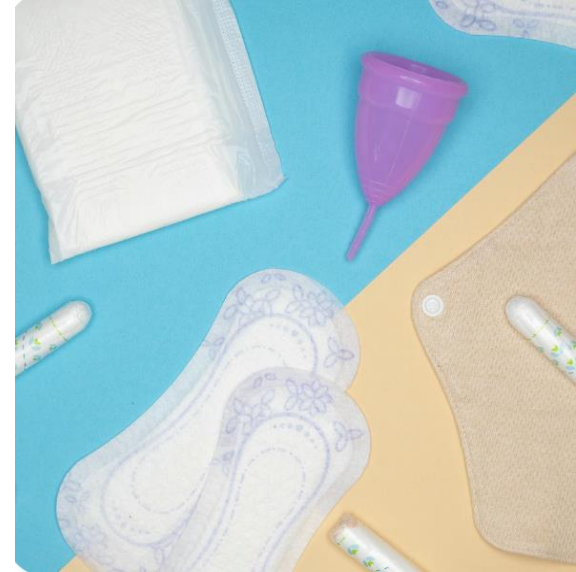
ICRC



Good practice: Hygiene kits

30% emission reduction through redesign of hygiene kits

- Distribution of less razors with improved quality and durability
- Reduction of volume by 40% for some products: switching to concentrated detergent, shampoo bars instead of liquid shampoo
- Switching to recycled, unbleached toilet paper
- The new ICRC hygiene kit comes with 30% lower greenhouse gas emissions as compared to the previous kit
- The greatest reduction in emissions on a product level was seen in razors (59%), detergent/washing powder (50%) and toilet paper (45%)



Co-benefits

- ✓ Better quality of certain items
- ✓ Reducing local waste pollution through less use of plastic and distribution of less, but higher quality products
- ✓ Currently no cost increase anticipated by ICRC



ICRC



Good practices: Eco-design tarpaulin (IFRC/ICRC/UNHCR)

22% CO2 emission reduction through reduced weight and recycled plastic

- **Extended lifespan:** Stronger PE material and high UV resistance = potentially 50% reduction or more of the overall impact when lifespan is doubled
- **Reduced weight** by 14% (less use of raw materials) = 14% emission reductions
- 15% recycled polyethylene = 8% emission reductions
- 54% reduction of climate change impact in case the tarpaulin is recycled
- **7% cost savings, 14% cost savings** when considering reductions in volume that lead to savings in transport and warehousing
- Important to work with suppliers on implementation of specifications and to perform checks



Good practice: ICRC Switching from rice to sorghum in Sudan

90% emission reduction by switching from imported rice to locally sourced sorghum

Co-benefits

- ✓ Improved nutrition: **better nutritional value**
(proteins, minerals, vitamins)
- ✓ Reduced expenses: **30% savings**
- ✓ **Strengthening of local agricultural production**



ICRC



SOLUTIONS HUB

Understand the topic

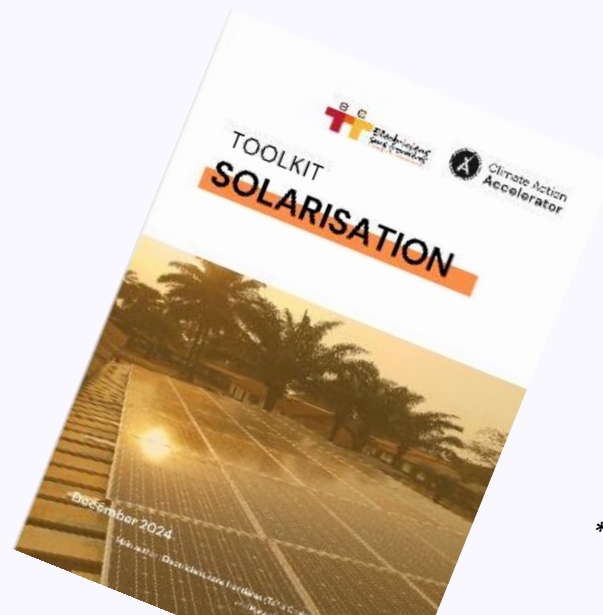
- 1 Generic Solutions List
- 80 solution factsheets covering key areas to reduce the climate and environmental impact of an organisation
- 1 Overview of quick and easy wins



TOOLKITS

Implement solutions

- Professional travel
- Good office practices
- Procurement
- Fleet
- Solarisation
- Waste monitoring*
- Heat management**

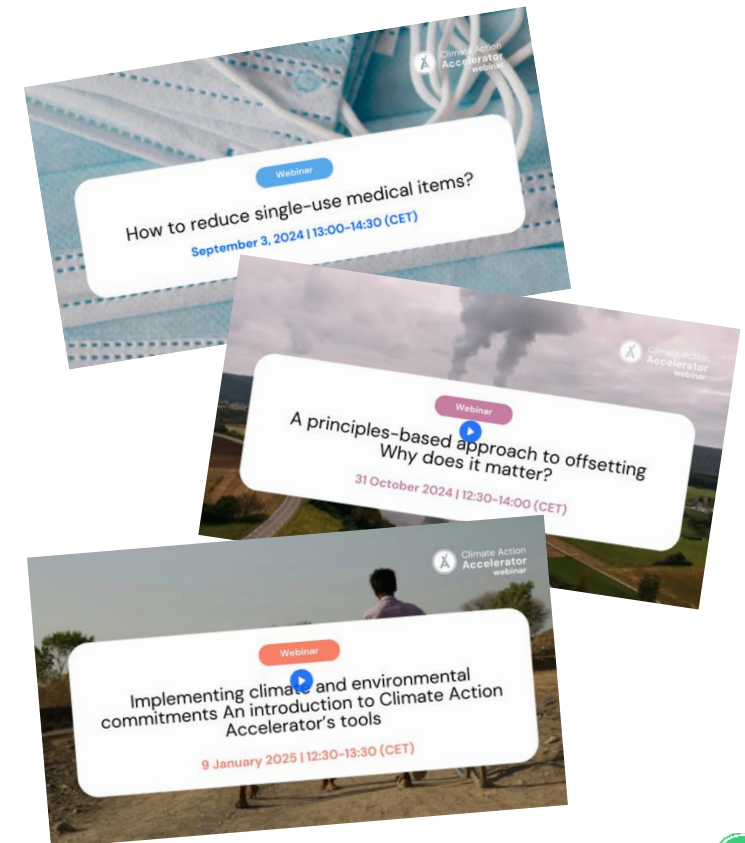


* available soon

WEBINARS

Get inspired

- 14 webinar replays online



Thank you !



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Accelerator



contact@climateactionaccelerator.org



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