JOINT INITIATIVE FOR SUSTAINABLE HUMANITARIAN ASSISTANCE PACKAGING WASTE MANAGEMENT

ICRC

MANAGING PACKAGING WASTE SUSTAINABLY - LESSONS FROM HUMANITARIAN ORGANIZATIONS:

ICRC AFGHANISTAN'S PILOT: REPLACING PLASTIC WITH CARDBOARD IN NFI DISTRIBUTIONS

INTRODUCTION / BACKGROUND

The ICRC ensures humanitarian protection and assistance for victims of war and armed conflict. It takes action in response to emergencies and promotes respect for international humanitarian law. As part of this work, the ICRC visits detainees to monitor their conditions of detention and ensure that their fundamental judicial guarantees, dignity and wellbeing are respected.

Since 2012, the organization has been actively involved in reducing the environmental and carbon footprint of its programs and offices. As part of the SSCA (Sustainable Supply Chain Alliance) project, significant changes have been made to make their supply chains more environmentally friendly, including developing sustainable specifications for their relief items and packaging.

ICRC: ORIGINALLY PACKAGED NFI KITS (ABOVE) IN SINGLE-USE PLASTIC (SUP) BAGS.

One example of these efforts is in Afghanistan where the ICRC has been delivering non-food items (NFIs)[1] to 30,000 detainees twice yearly for the past 10 years. (i.e., 60,000 kits a year). The case study is part of a wider effort led by the Joint Initiative for Sustainable Humanitarian Assistance Packaging Waste Management to compile best practices from aid organizations in their efforts to eliminate unnecessary packaging and support better packaging waste management.

PROCESS

In 2021, the Afghanistan team revisited the secondary packaging used for these NFIs in order to move away from clear, single-use plastic (SUP) bags (see picture). This process generated a lot of plastic waste which then had to be disposed of by the prison authorities. There was **no real opportunity for reuse**

[1] Content: toothbrush, toothpaste, soap, washing powder etc.

or reverse logistics as bags were ripped open upon receipt, and plastic bags are not easily recycled in Afghanistan given their low economic value.

In 2021, taking advantage of some left-over budget from another program, the team decided to pilot a shift to brown recycled cardboard packaging. This involved substantial negotiation with prison authorities to approve the new opaque cardboard box. The transparent SUP bag used previously was preferred and historically required by the prison security because it was easier to scan and search.

When implementing this change, ICRC also modified their distribution routes to have items purchased and delivered closer to the project sites in order to avoid unnecessary layovers in Kabul.

In 2022 the project was scaled up to include all detention facilities where ICRC works in Afghanistan.

ICRC: THE UPDATED NFI KITS IN THE BROWN RECYCLED CARDBOARD BOXES.

BENEFITS

- **Environmental**: The shift away from single use plastic helped reduce **the volume of plastic waste generated and the associated pollution** (linked to burning or landfill). Now that the kit packaging has been changed to recycled and unbleached cardboard, ICRC is looking into ways to reduce packaging for the items inside the kits, for example, by purchasing some items in bulk.

- **Reuse of packaging:** Beneficiaries were happy with the switch to cardboard boxes because they can use them as floor mats or as storage.

- **Team mobilization:** With the success of the pilot and the decision to scale up the use of cardboard boxes, the ICRC team has become increasingly engaged and interested in opportunities to improve the sustainability of their operations. The team has been **exploring other opportunities** to integrate sustainability into ICRC's standard procurement practices in Afghanistan.

- **Co2 emission:** As mentioned above, the change made in the packaging triggered reflection on ICRC's distribution routes. Reconfiguring the transportation logistics for distribution of these items has reduced the environmental/climate impact of operations by **cutting down on fuel consumption** (approx. 1000 liters per distribution) **and associated emissions** (approx. 3000 KG of Co2).

CHALLENGES

- **Cost**: While some changes in packaging specifications can be done without cost, the shift from plastic bags to cardboard incurred an extra cost of approx. **$38,000 per year for the 60,000 kits distributed**[2]. Boxes are **more expensive** ($0.56 per box as opposed to $0.08 per plastic bag)[3]. Although the changes made to ICRC's distribution routes generated some savings (e.g., fuel), this did not cover the overall additional budget required.

- **Added distribution time:** Another challenge was the added distribution time in the prisons, as staff can carry considerably fewer boxes than plastic bags at a time. The initial trial showed it took **nearly twice the amount of time to distribute**.[4]

  Nevertheless, ICRC is looking into making changes to the delivery method by **asking prisoners** to take part in the distribution, which would reduce the overall time needed. The transition from bags to boxes did not lead to an increase in the storage space needed, nor an increase in the number of vehicles required. The boxes can be stacked higher than the plastic bags without being damaged.

- **Negotiation with prison authorities**: While there was immediate internal agreement within ICRC on transitioning to cardboard, this change was met with initial resistance from prison authorities, requiring additional time and effort from ICRC staff to gain their approval.

LESSONS LEARNED

There are several lessons learned from ICRC's transition from SUP bags to cardboard boxes that may be useful for other humanitarian assistance organizations:

- The financial implication of shifting from plastic to cardboard needs to be **budgeted for in advance**, particularly for organizations with smaller programs and less financial autonomy. This case study shows that **revisiting procurement in a holistic way** (in this case reviewing the distribution routes) can help generate savings which can be used to absorb additional costs.

- In addition to financial considerations, introducing sustainable changes to organizations' supply chains requires **a change in mind-set, time, investment from staff and a willingness to "do things differently".** Although these types of changes are difficult to envisage when efforts are focused on responding to humanitarian needs in emergency settings, **sustainability may be taken into account for items which are purchased and stocked in advance**.

- When replacing plastic with cardboard, it is important to also consider the **composition of cardboard**, **i.e., ensuring that unbleached cardboard is selected over white (bleached) cardboard** in order to eliminate water and soil contamination generated during the recycling process, or when cardboard is burnt/deposited in landfills. Use **recycled cardboard or certified sustainably sourced cardboard** (e.g., FSC) if available and/or economically viable.

- This case study demonstrates that **suppliers**, including those operating in complex socioeconomic

[2] 30,000 kits x $0.56 x twice yearly distributions = $38,000 as opposed to 30,000 kits x $0.08 x 2= $5,440.
[3] Estimated at $0.56 per kit.
[4] The ICRC team is currently re-analyzing the method of distribution to see if delivery time can be reduced.

and conflict impacted contexts such as Afghanistan, **are open to making adjustments to make their products more sustainable**. ICRC suppliers have voiced continued interest in working on additional sustainability initiatives.

- Bringing changes to specifications requires organizations to carry out trials with their suppliers. ICRC found that it was more efficient, cheaper, and easier to do a single test run with one cardboard box supplier located in Kabul for the required 30,000 items, rather than various smaller tests with different suppliers. This ended up being easier to scale up.

CONCLUSION

From a waste management perspective, unbleached cardboard (when brown) is better than plastic as it helps reduce air pollution (when plastic is burnt), as well as soil and water contamination (plastic particles which take thousands of years to decompose). Shifting away from plastic to cardboard presents opportunities for humanitarian organizations to reduce their environmental footprint caused by poor waste management practices.

Nevertheless, this shift comes at a cost and covering this cost is only possible for organizations which have some level of **financial autonomy or those which have anticipated these costs in their budgets.**

While a "good enough" approach is most suitable in difficult humanitarian contexts such as Afghanistan, it is important to keep in mind that **cardboard is not the "perfect" solution** and can generate other environmental impacts: the transport of cardboard is often more **carbon intensive** (as much heavier than plastic) and the use of cardboard from non-sustainably managed forests can also have **an impact on biodiversity.** If possible, humanitarian organizations should adopt a **holistic approach** and analyze various environmental impacts in order to be able to make informed choices when comparing different options.

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