

RANAS campaign combined with bin provision increases organic waste separation in Tongogara refugee camp, Zimbabwe

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The aim of this project was to promote separation of organic waste for livestock. We used the RANAS approach to develop the campaign and a phased implementation with before-after measurement to evaluate it. The results revealed that a combined RANAS and bin provision intervention effectively increased waste separation. Controlling for decreases in the comparison group, the behaviour change achieved by the campaign amounted to 15% in the low intensity group and 30% in the medium intensity group. Waste observations corroborate these findings.

Aim

The aim of this evaluation was to quantify the effectiveness of a combined RANAS and infrastructure intervention on waste separation at household level in Tongogara refugee camp, Zimbabwe.

Methodology

We used a phased implementation with before-after measurement and three groups. In the comparison group, no activities were planned. In the first campaign group, only behaviour change communication based on the RANAS approach was planned. In the second campaign group, a combination of behaviour change communication based on the RANAS approach and bin provision was planned. Baseline data was collected through structured quantitative face-to-face interviews before campaign implementation in November 2023. Follow-up data was collected from the same participants in June 2024 after the first phase of the campaign implementation described below. The campaign implementation will be completed after the follow-up survey in a way that all participants will have received both, the behaviour change communication based on the RANAS approach and bins if needed. Informed consent for the repeated data collection and participation in the phased campaign implementation was obtained from all respondents at baseline.

Campaign

The campaign was developed in collaboration with UNHCR and WorldVision using the risks, attitudes, norms, abilities and self-regulation (RANAS)

approach to systematic behaviour change. It was developed based on a doer/non-doer analysis conducted with the baseline data. Each activity targeted specific behavioural factors identified by the doer/non-doer analysis:

1. During community meetings, community members who already separated their waste for livestock were introduced as role models and spoke in front of the others about their practices. All participants planned when and how to separate organic waste using a planning template and had the opportunity to sign up for WhatsApp groups.
2. Household visits included individual action and barrier planning using planning template and individualized feedback on current practices.
3. Follow-up household visits were combined with waste collection visits and included feedback on the separated waste.
4. In WhatsApp groups, volunteers would post their experience with organic waste separation for livestock, share reminders and discuss solutions for common barriers.
5. Bins were provided to households that did not have suitable containers for collecting organic waste.

Sample

Baseline and follow-up data were obtained from a total of 213 participants. The comparison group comprised 69 participants, the first campaign group comprised 49 participants, and the second campaign group comprised 57 participants. 38

participants were excluded because of unclear group allocation. On average, participants were 35 years old, 30% were men, the average household income amounted to 51 USD per month and households comprised, on average, three adults and one child below five years of age. The three evaluation groups were similar in terms of these socio-demographic characteristics.



Interview during follow-up data collection

Campaign recall

Figure 1 shows the recall of the campaign activities per campaign group. It suggests that some households from the comparison group were unintentionally targeted by campaign activities. In addition, bins were distributed in both campaign groups, rather than in Campaign group 2 only as planned. Overall, recall of campaign activities was rather low. This suggests that the reach of activities was much lower than intended. Social media activities do not seem to have taken place at meaningful scale. In Campaign group 1, recall of individual activities ranged from 11% to 21%. In Campaign group 2, recall ranged from 20% to 29%. Campaign group 1 will thus be considered as “low intensity” campaign group and Campaign group 2, will be considered “medium intensity” campaign group.

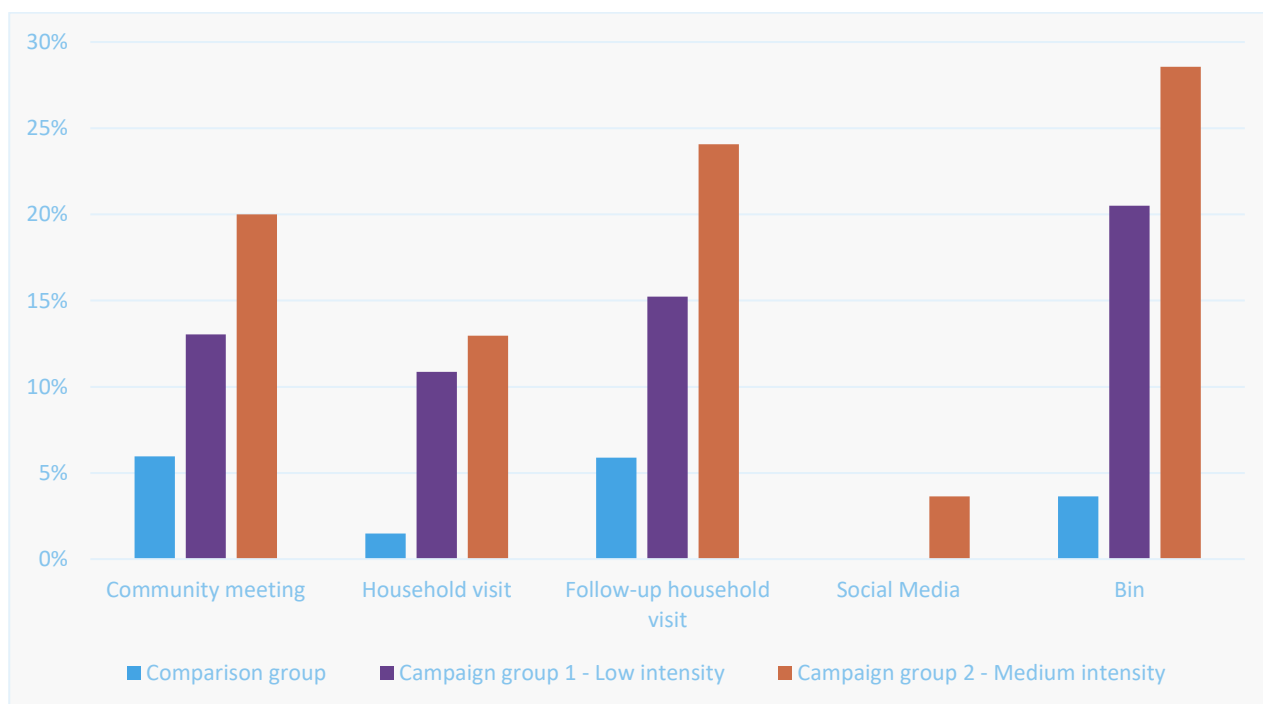


Figure 1: Recall of campaign activities.

Campaign perception

Participants were asked how useful they perceived the activities they had participated in. Bins were perceived most useful followed by community meetings and follow-up household visits. On

average, bins were perceived “very useful”, corresponding to a value of 0.7 on a scale from 0 to 1; community meetings and follow-up household visits were perceived “medium useful” corresponding to values of 0.5; and the initial household visits were perceived “little useful” to

“medium useful”, corresponding to a value of 0.4. However, fairness of bin distribution was perceived only “little fair” in the comparison group and “medium fair” in the other groups, corresponding to values of 0.2 and 0.5, respectively. Anecdotal evidence suggests that some households that had previously separated organic waste stopped because they had not received a bin.

Behaviour change

At baseline, between 67% and 74% of households reported to separate their organic waste for livestock (Figure 2). In the comparison group, organic waste separation slightly decreased by 9% during the project.

This may be due to factors external to this project, such as seasonal variability of the behaviour or changes in available service options. Some participants complained that they did not receive bins during the first implementation phase and may thus have abandoned waste separation. Despite this, overall waste separation behaviour increased in Campaign group 1 (by 6%) and in Campaign group 2 (by 21%). Controlling for the decrease in the comparison group, the effect of the campaign amounted to 15% (Campaign group 1) and 30% (Campaign group 2), respectively.

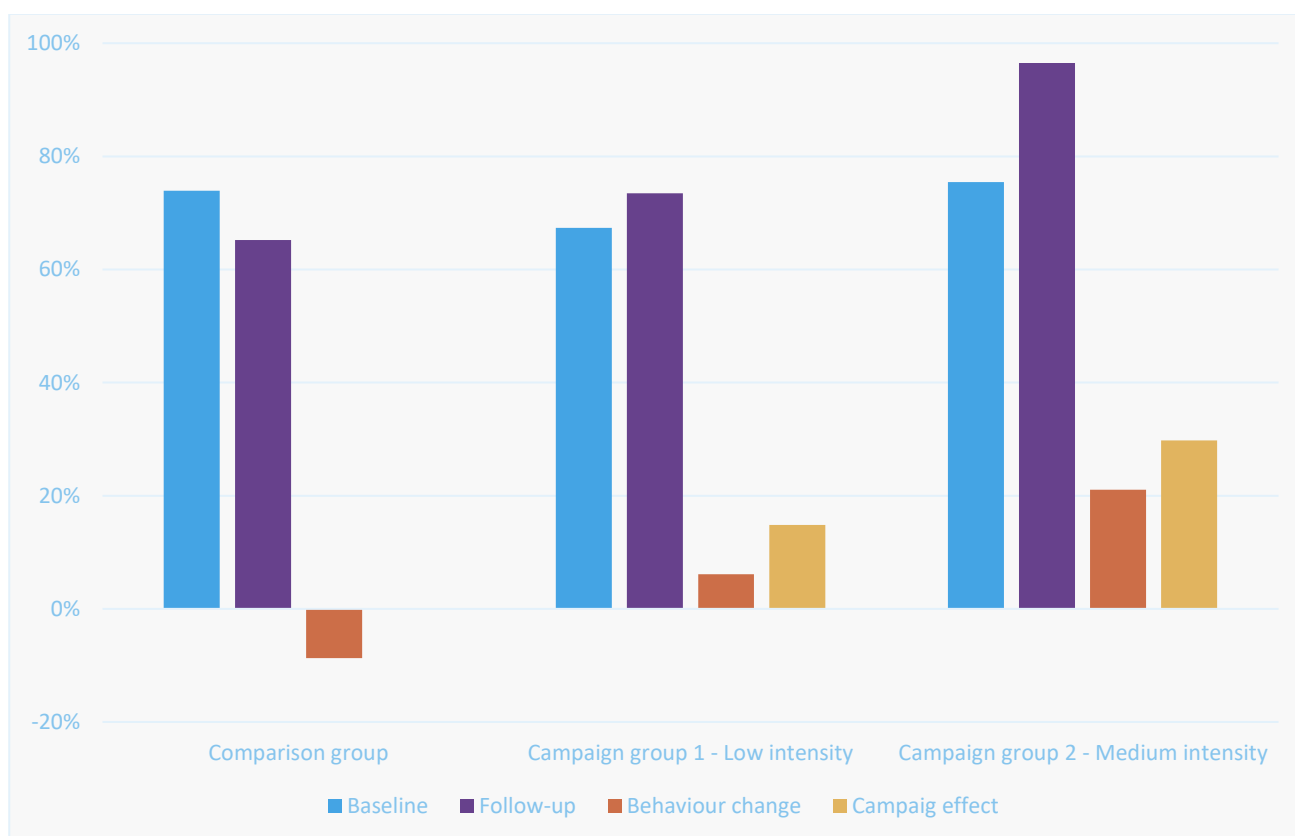


Figure 2: Separation of organic waste for livestock at baseline and follow-up and behaviour change.

Valid waste observations were obtained from 27 households at follow-up and are in line with the self-reported data. In the comparison group, waste designated for feeding livestock included less than 60% suitable organic waste and higher shares of unsuitable organic and residual waste.

In the campaign groups the share of suitable organic waste was higher and it amounted to more than 68% in the low intensity group and 84% in the medium intensity campaign group (Figure 3).

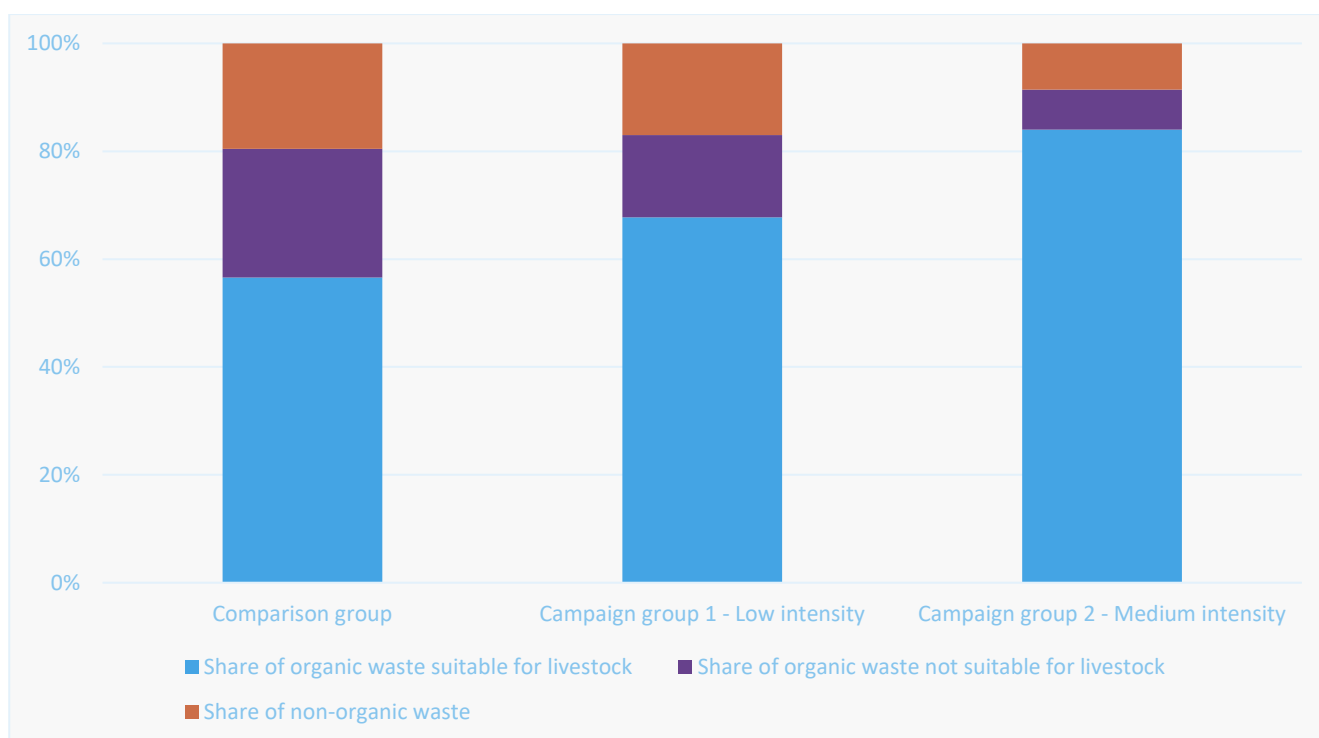


Figure 3: Composition of waste separated for livestock.

Conclusions

The evaluation of this campaign pilot revealed that a combined RANAS and infrastructure intervention effectively promoted waste separation for livestock in a humanitarian camp setting. The intended evaluation design of comparing behaviour change communication based on the RANAS approach with a combination of behaviour change communication and bin provision was not realised and the campaign's reach was much lower than intended. Recall of campaign activities shows that a combination of RANAS behaviour change communication and bin provision was implemented in both campaign groups. Intensity of implementation of the campaign activities varied substantially between groups. Controlling for

decreases in the comparison group, the behaviour change achieved by the campaign amounted to 15% in the low intensity group and 30% in the medium intensity group. Waste observations conducted in 27 households at follow-up corroborate these findings. Observations revealed 68% sorting accuracy in the low intensity group and 84% sorting accuracy in the medium intensity group, as compared to only 57% in the comparison group. The results encourage the scale-up and intensification of campaign activities to more households and camp sections in Tongogara refugee camp. The effectiveness of evidence-based and data-driven campaigns promoting waste separation with and without bin provision shall be evaluated in other settings.

Further information: Information on the RANAS model and practical approach, the Behaviour Change Techniques Catalogue and more fact sheets on the RANAS approach can be accessed on www.ranas.ch

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