ABSTRACT

NO BURN HOME: A Behavioral Nudging Pilot Project to Reduce Household Waste Burning through SAMPAN Box

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Background : Household waste burning is an environmental health concern that can expose communities to harmful air pollutants. In Bangun Rejo Village, East Kalimantan, some households practiced waste burning and did not consistently sort their waste. A household-based intervention was developed to encourage safer and more sustainable waste management practices.

Objective : This study aimed to evaluate changes in household waste-burning and sorting practices following a pilot intervention integrating behavioral nudging, SAMPAN BOX waste-sorting facilities, environmental health education, and household-level monitoring.

Implementation Methods : The No Burn Home pilot project was conducted in July 2026 and involved seven households identified through an initial survey as practicing household waste burning. The intervention included persuasive interviews, waste management education, distribution of SAMPAN BOX sorting containers, household commitment statements, an educational booklet, two monitoring rounds, and rewards. Five behavioral indicators were assessed during monitoring.

Results : During the first monitoring round, six households (85.7%) reported stopping waste burning, while all seven (100%) routinely used SAMPAN BOX and sorted waste by type. In the second round, waste-burning cessation declined to four households (57.1%), a decrease of 28.6 percentage points. Meanwhile, six households (85.7%) continued sorting waste, and all seven (100%) maintained SAMPAN BOX use and their stated commitment to avoid burning waste. These findings indicate that waste-sorting practices were more consistently maintained than waste-burning cessation.

Conclusion/Lesson Learned : No Burn Home demonstrated the feasibility of combining behavioral nudging, waste-sorting facilities, education, and household monitoring. However, the decline in waste-burning cessation highlights the need for sustained community engagement and accessible waste-disposal alternatives. Larger studies with longer follow-up are needed to assess long-term sustainability.

Keyword : Household Waste; Waste Burning; Waste Sorting; Behavioral Nudging; Community Intervention