Senegal, Thiaroye Sur Mer: Replacing deadly lead battery recycling with profitable hydroponic gardens

Acute lead poisoning, a rare condition requiring prolonged daily exposure to lead, took the lives of 18 young children from Ngagne Diaw in a matter of months. The women of the community had been breaking used lead-acid batteries and smelting the lead to extract it for resale. Lead fumes and dust contaminated the community killing children and impairing the health of others. Project partners and funders, along with the Senegalese government, not only removed lead contamination from the village, but also trained the women in hydroponic agriculture as an alternative to this toxic work.

Location	Thiaroye Sur Mer, Senegal
Pollutant	Lead
Source	Dismantling lead acid batteries to extract the lead; and smelting the lead for resale
Population affected	10, 000
Health and environmental impacts	Women and children were inhaling lead dust from the dismantled batteries and smelting; Lead contamination in the soil and water
Intervention	Cleaned-up community and provided training hydroponic agriculture, making extracting lead from batteries no longer necessary as a means of income.
Outcome	Recycling lead acid batteries is no longer practiced in the community.
Co-benefits	Health improvement locally. Increase of nutritional foods production. The project can be expanded and be replicated as a model for communities in Senegal and beyond engaged in unofficial labor with toxic materials.

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