Compost Toilets in Sierra Leone

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Background

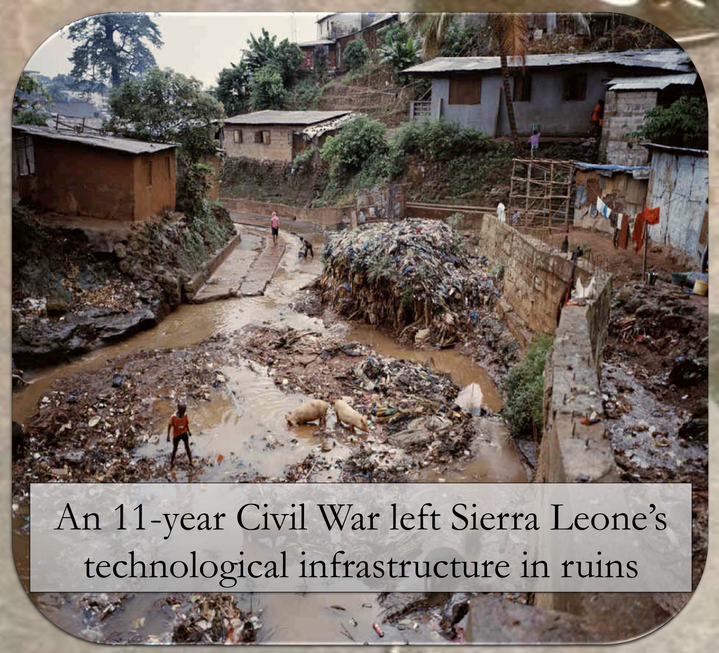
- Almost 83% of the country's population lacks access to clean water
- Poor wastewater management leads to a constant source of pollution

Children drink dirty water as a last resort

Many wells have been damaged after the war

Conclusion

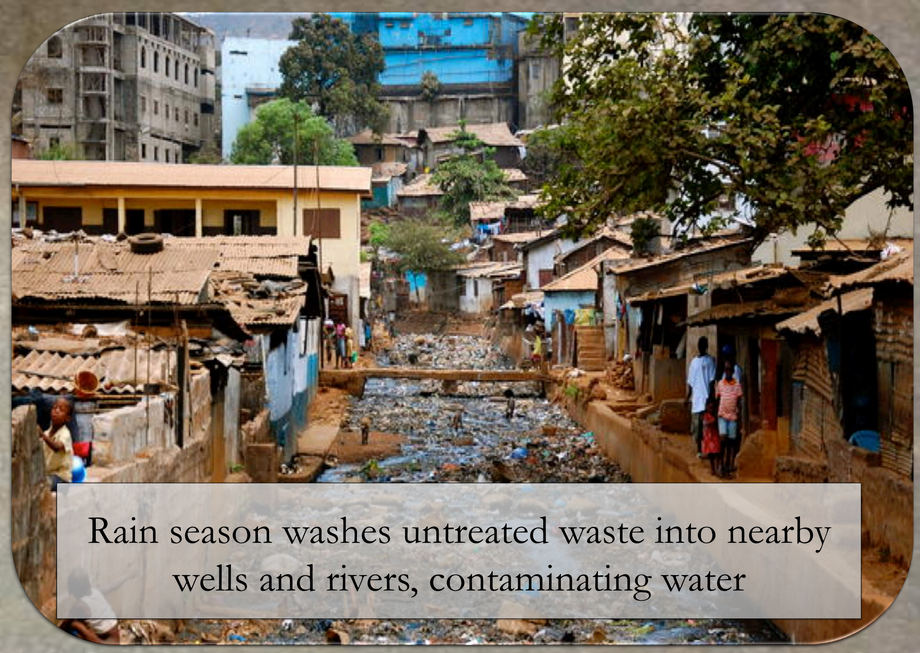
- Villagers are uneducated on the danger of contamination
- Post war aftermath caused water infrastructure damage
- This deadly combination of problems increases the chance of other diseases spreading, as seen with Ebola



An 11-year Civil War left Sierra Leone's technological infrastructure in ruins

Methodology

1. We used interviews and secondary source research to gather information on water quality and sources of pollution
2. Identified fecal contamination, among other sources, as the worst polluter
3. Evaluated potential solutions: a) wetland treatment, b) kiln dust & rice straws, c) compost toilets
4. Compost toilet chosen as most appropriate solution

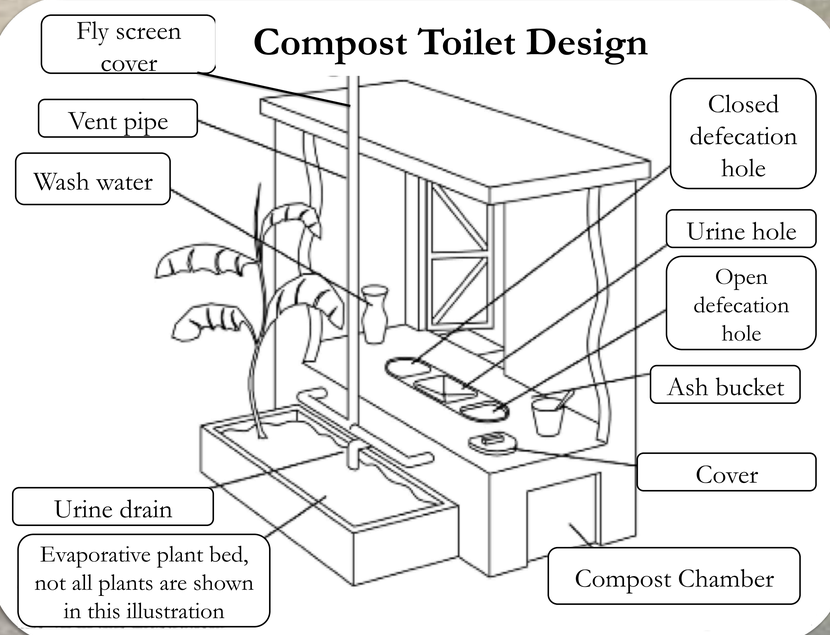


Rain season washes untreated waste into nearby wells and rivers, contaminating water

Objectives

- Identify main source of pollution
- Evaluate potential solutions to reduce pollution at the source
- Choose most technically, economically, and culturally appropriate solution
- Create a set of recommendations for implementing chosen solution

Compost Toilet Design



Solutions

- Identified best compost toilet design, and wrote instructions on usage/maintenance
- Gave the designs to Seven Hills Global Outreach to implement, after Ebola crisis resolves
- Educate local community on benefits of using a compost toilet via Seven Hills Global Outreach

Acknowledgements

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