SEDERA INITIATIVE

A campaign to build eco toilets in rural Nigeria

Introduction

According to the WHO and UNICEF (2017) 122 million people were practicing open defecation in West and Central Africa in 2015. This number has increased by 34 million since 2000 as the rate of progress in ending open defecation was insufficient to account for population growth. West and Central Africa accounts for 14% of global open defecation with eight countries having more than 5 million open defecators. Nigeria is among the nations in the world with the highest number of people practicing open defecation, estimated at over 46 million people. Another 56 million people are estimated to be added during the next ten years. This means a total of 102 million people or 20 million households would not have access to toilets. Another factor responsible for open defecation are traditional cultural practices, and this has been further exacerbated by insufficient sanitation infrastructure and services. This is so dire that even if toilets are available, behavioral change efforts may still be needed to promote the use of toilets.

To addressing this issue, the Government of Nigeria has set a target to end open defecation in the country by 2025. Towards this end, Nigeria has developed a roadmap for making Nigeria open-defecation- free by 2025. To achieve the set target, SEDERA Initiative is embarking on a campaign against open defecation by

1) the provision of sustainable Eco-friendly pit toilets in Nigeria, and
2) community-led educational sanitation and hygienic programs.

The goal is to build twenty eco toilets at public spaces such as schools, health centers, market centers and motor parks in rural communities within Nigeria. Apart from the benefits of reducing open defecation, they eliminate the need for energy dependent water flushing systems (having 0% environmental impact). Additionally, the community led total sanitation program will lead to sustainable maintenance of these built toilets, and also help in reducing the spread of contagious diseases associated with open defecation like diarrhea and intestinal worm infections, cholera, and typhoid.

Background

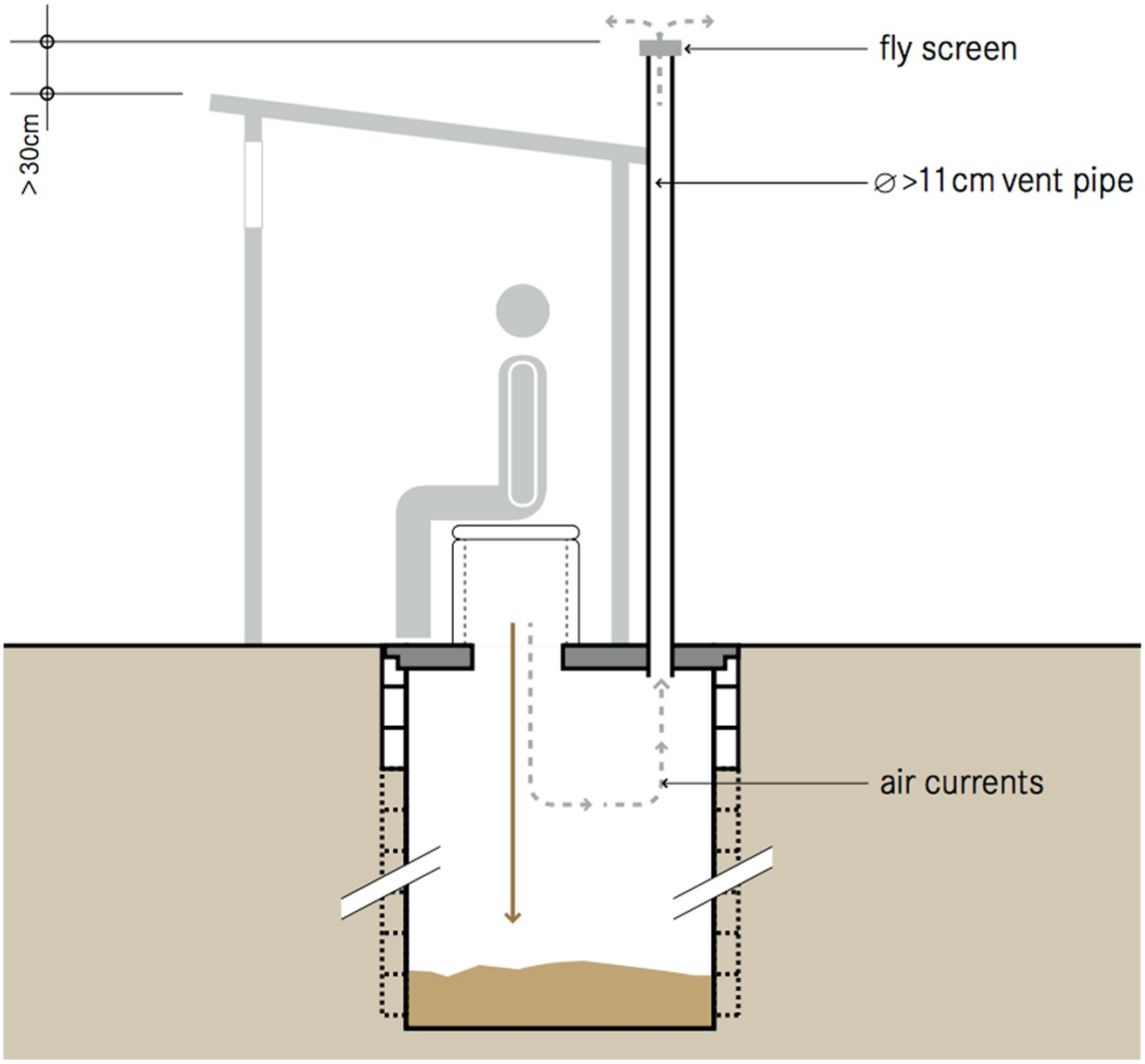
SEDERA Initiative aims to drive socio-ethical innovations and initiate environmental risk awareness, to improve standards of living around the world. SEDERA also promotes sustainable development through creative and effective ideas aimed at tackling issues in communities facing environmental pollutions and disasters. Our team of experts employ the use of data analysis to encourage healthy living in the society.

Campaign Objectives

1. To ensure the protection of the environment through eco-friendly management measures.
2. To inform and create awareness on social and environmental issues.
3. Collection of data for studies on the environment for future reference.
4. To encourage hygiene and sanitation to improve the livelihood of communities.
5. To create a support structure that will provide basic needs to less privileged society.

Toilet Specifications

An eco-toilet generally consists of three major parts: a hole in the ground, a concrete slab or floor with a small hole, and a shelter. The shelter is also called an outhouse. The pit would be typically at least three meters (10 feet) deep and one meter (3.2 feet) across. The hole in the slab will not be larger than 25 centimeters (9.8 inches) to prevent children falling in. Light will be prevented from entering the pit to reduce access by flies. This will require the use of a lid to cover the hole in the floor when not in use. The World Health Organization recommends the pits are built a reasonable distance from the house, balancing issues of easy access versus that of smell. The distance from water wells and surface water will be at least 10 meters (32 feet) to decrease the risk of groundwater pollution. When the pit fills to within 0.5 meters (1.6 feet) of the top, they will be emptied. Fecal sludge management involves emptying pits as well as transporting, treating and using the collected fecal sludge.



Campaign Budget

The cost estimates in the table below are costs associated with the construction of one eco toilet:

Activities	Cost ($)
Foundation, Latrine Pit Digging and Concrete work	90
Iron Reinforcement	25
Block work and plastering	80

Roofing material and installation	40
Latrine	30
Doors	30
TOTAL	**295**

Conclusion

The cost estimate of this project as seen above will prove to be cost-effective. In addition, the fecal sludge can be utilized as organic fertilizer for farmers and gardeners in rural settlements after treatment.