

"I GET UP 2 HOURS EARLIER ONLY TO QUEUE UP WITH **HUNDREDS OF REFUGEES** TO WASH UP IN TIME FOR SCHOOL. THE TAPS TRICKLE **SLOWLY** AND THE BATHROOM IS ALWAYS CHOKED. I DON'T LIKE IT HERE."

- Rahel, 9

WHY REFUGEE CAMPS? % of people in area without access to:



WHY SANITATION?

slums

refugee camps

highest no. of refugees per toilet





safety

WHY ZA'ATARI?



GOALS &

MOTIVA-TIONS

PRECE-DENCES



ACTIVITIES

OBJECTS

USERS

ENVIRONMENT

INTERACTIONS



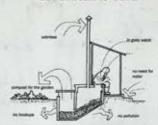


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REFUGEES

LIVING MACHINE natural plant-based filtration but costly



ECOLOGICAL DRY TOILET natural ventilation system but difficult to build



UNBATHROOM portable cardboard toilet but lacks a disposal system

improper sanitation not only stimulates spread of pathogens and diseases, but also directly increases chances of sexual attacks on women and children.

of refugees per toilet

this inhibitis not only education, safety and livelihood, but also the freedom of every single refugee.

aim alleviate to infringement of basic human rights by overcoming this obstacle.



LESS WATER

ALTERNATIVE USES

CONSIDER

EASY TO SET UP

LOW COST & LOCAL **MATERIALS**



VACUTUG

system to empty septic tanks but needs some manual regulation

to design a product or system that allows refugees to use toilets safely without contamination issues, spread of disease, smell or improper disposal of waste. we intend to explore possible ways human waste could benefit the camp, in the areas of energy, ecosystem and sustainability.