LOCAL PROJECT CHALLENGE 2020: Accelerating the SDGs

MUD TO MORTAR  A Clean Foundation for a Healthy Future

Savar, Bangladesh

Project Description
Access to adequate housing is a human right. Unfortunately, 1.6 billion people around the world do not have access to safe and healthy homes which actively contribute to the spread of disease. Vulnerable communities are especially subject to numerous high risks including waterborne diseases linked with low-quality, substandard housing and sanitation infrastructure and a lack of education on hygiene and disease prevention. In the region of Savar, Bangladesh, many communities suffer seasonal flooding, bringing contaminated water and liquid waste into walking paths and living environments, eroding dirt floors. Dirt flooring, which 67% of households in Bangladesh have, makes an ideal breeding ground for parasites and bacteria, causing life threatening illness.

ARCHIVE Global's project, Mud to Mortar, delivers a unique intervention that helps address this problem: the complete replacement of dirt floors with a simple concrete floor assembly in the homes of vulnerable families.

This one simple improvement to houses with dirt floors offers the opportunity to alter the inadequate housing conditions that increase parasite infestations and the subsequent diarrheal disease incidences in children. Currently, we are preparing to implement Phase III of this project in early 2020 following a highly successful pilot program in 2013 and a scaling up of the project in Phases I (2018) and Phase II (2019).

Community Engagement
Mud to Mortar is unique in that the approach encompasses not only a built intervention, but a research project and an extensive community health training and engagement programs. This enables Mud to Mortar to be as socially and economically sustainable as possible. We actively work with the local project masons to ensure the construction methods used are appropriate to local skill sets and material availability. In addition, we engage beneficiary and community families in education trainings, spreading knowledge on the relationship between healthy housing and habits and their family’s health. This engagement maximizes the impact and sustainability of Mud to Mortar. We have also broadcasted a nationwide PSA, reaching almost 2 million viewers, spreading awareness of the connection between the home and health.

Construction Process
ARCHIVE is constantly working to design the most environmentally and economically sustainable flooring methodology as possible. ARCHIVE works with its partners to ensure that our stakeholders are actively involved in the development and rollout of the project. Working alongside project partners, community members, and masons to design construction methodologies allows for the project to be easily implemented outside of ARCHIVE’s involvement.

Outcomes
Our Phase II quantitative data analysis of the beneficiary households showed:

- 77% of the surveyed households reported a decline in diarrheal episodes among children
- 83% saw a decline in breathing problems among children
- 53% saw a decrease in coughing among children
- 93% of households reported a decline in short and rapid breathing among the participants.
- 29% decrease in exposure to Ascaris lumbricoides among children

We also tracked the following additional positive outcomes:

- Reduced snake, rat, and other vermin infestations
- Reduced theft
- Increased in security
- Increase in pride of home
- Increase in social status
- Increase in children’s days spent at school
- Increase in overall mental health
- 22-46% increase in home value

Sustainable Development Goals

- #1: No Poverty (1.1, 1.2, 1.3, 1.4.1, 1.4.1.1)
- #3: Good Health and Wellbeing (3.2, 3.3)
- #4: Quality Education (4.3, 4.4)
- #5: Gender Equality (5.1, 5.2, 5.3)
- #6: Clean Water and Sanitation (6.3)
- #8: Good Jobs and Economic Growth (8.5, 8.6)
- #11: Sustainable Cities and Communities (11.1, 11.5)
- #13: Climate Action (13.1)
- #17: Partnerships for the Goals (17.1, 17.3, 17.9)

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ARCHIVE Global, CARE, BRAC UNIVERSITY, GRIMSHAW, HOUSING AND BUILDING RESEARCH INSTITUTE

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ARCHIVE, Grimshaw, HBRI, Save the Children, Sikkim and ADESH teams (2019)