



'Housing for All' SOLUTION

ARCHIVE Global – Mud to Mortar, Bangladesh

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Inadequate housing has negative effects on countless areas of people's lives. It exacerbates diseases and reduces mental health outcomes. Environmental interventions of the housing structure, for example, can reduce the risk of malaria by 88%. Reduction of cook stove smoke can also lead to as much as 75% reduction in pneumonia cases.

ARCHIVE Global – Architecture for Health in Vulnerable Environments – is an international non-profit harnessing the power of the built environment to improve health outcomes in vulnerable communities around the world. Through our three-pronged approach of research, design/construction, and advocacy, ARCHIVE works with vulnerable communities worldwide to improve living conditions and health outcomes, implementing cost-effective and scalable design interventions to the built environment.

In particular, Mud to Mortar is a project carried out in Bangladesh since 2014 and focusing on dirt floors, which are a proven pathway for parasitic worm and diarrheal infections that can result in malnutrition, anemia and cognitive and physical stunting. Through an effective, low tech, and easily cleaned concrete flooring intervention, Mud to Mortar improves the health and living conditions of vulnerable families.

The Akter family, one of the beneficiaries of the intervention, shared that “before the project the condition of the house was unpleasant. The floor and surroundings were made of dirt. During the rainy season the floor became muddy... Due to dampness our children regularly suffered from skin infections, coughs and colds, fevers and diarrhea. We had to borrow money to cover the medical costs. How could we manage the treatment expenses for the children when we can't even provide food for them? Now with the new floor our daughters are not sick, and we are less worried about medical expenses. Our family is using the healthy living lessons that we received in the training and awareness meetings. We are sleeping without worries and nightmares. Now we have a sense of dignity”.

Mud to Mortar reduces the number of deaths in Bangladesh that are caused by preventable diseases, in particular breathing problems, diarrheal episodes and worm infestations. At the same time, by reducing recurrent medical expenditures, these interventions create more financial opportunities for families to invest into education, food, and housing upgrades, as well as in their community and other financially productive endeavors. The new floor also saves women up to 20 hours per week due to reduced time spent on cleaning and maintenance.

Since 2014, Mud and Mortar has reached around 1,300 direct beneficiaries through the construction of 295 concrete floors, each of them at the cost of \$1.21 per square foot and tested to last around 30 years. 11,600 community members have been trained on best sanitation and hygiene practices, and 1.2 million Bangladeshis have been reached with a public service announcement about the importance of housing on health. The project has increased local capacity by training and employing 42 masons, and 36 masons-in-training in the new flooring construction methodology.