BIG BOLD IDEA

Increase the accessibility of housing and infrastructure for low-income communities in India using bio-composite panels made of crop-residue to reduce the cost and time of construction.

ORGANIZATION OVERVIEW

STRAWCTURE ECO is tackling the global housing crisis. It reduces the cost of construction and time to build by using bio-composite panels made of crop residue, of which more than 20 million tons are burned annually on farms in India. The combination of modular construction and alternative cost-effective material makes housing more accessible. The agri-waste applied in circular economy manufacturing provides 10 percent additional income to farmers. STRAWCTURE ECO’s goal is to make a replicable business model that will substitute 30 percent of global building material with bio-composites.

PERSONAL BIO

Shriti Pandey is founder of STRAWCTURE ECO, the first company in India to make homes and schools using bio-composite panels. Her initiative stops crop stubble burning, which is the leading cause of air pollution in northern India and amounts to estimated losses of $30 billion annually. She moved back to India in October 2016 to live for a year in a tribal village to better understand the plight of low-income communities and design-build homes that address their concerns, aspirations, and problems. After her fellowship, she went to Eastern Europe to learn from companies that were already by then researching and commercializing building materials using agricultural residue, and she started STRAWCTURE ECO in 2018 to build spaces in India that are more affordable, accessible, and sustainable for all. She is a 22nd Youth Assembly Social Impact Challenge Award Winner in 2018, and an Acumen 2020 Fellow. She has a master’s in construction management from New York University and a B.Tech in civil engineering. Shriti is a 2020 Echoing Green Fellow.