

# CONSTRUCTION MATERIALS FROM RECYCLED WASTE



Sustainability in construction has become a pressing necessity rather than a mere choice. With developers emphasizing more in constructing sustainable structures and minimizing environmental impact, sustainable policies are poised to change the traditional construction world forever. These practices include material sourcing, material disposal, logistics planning, efficient material usage at the site, and more.

According to a recent study by Future Market Insights Inc., the global recycled construction wastes market is expected to grow at an 8% CAGR, rising from US\$9,053.7 million in 2023 to US\$19,500.1 million by 2033. Hence, developers are integrating ecological procedures such as advanced insulation techniques, solar panels, and rainwater harvesting systems, etc, to reduce energy consumption and carbon emissions. Sustainable buildings have higher property values and attract discerning buyers and investors. Furthermore, authorities are also implementing stricter building codes and sustainability standards, encouraging the adoption of sustainable construction practices throughout the industry.



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## BENEFITS OF USING SUSTAINABLE MATERIALS

From reducing energy, water consumption, and carbon emissions to lowering operating costs, sustainable construction has multiple benefits. Sustainable structures create healthier indoor environments through effective ventilation, better natural lighting, and non-toxic materials. Additionally, these practices conserve natural resources and support the goal of mitigating climate change.

## WINNING SUSTAINABILITY RACE WITH THE RIGHT MATERIALS

To establish an eco-friendly and enduring project, several measures can be implemented. To begin, employing locally produced building materials reduce operational costs, transportation costs, and pollution, and eliminates waste. Below are a few steps that can be adopted:

- Use of locally manufactured building materials
- Use low-toxicity building materials, such as low-VOC paints, adhesives, and sealants.
- The use of 'green energy' during the under-construction process, results in no greenhouse gas emissions while reducing air pollution
- Energy-efficient air-conditioning and water heating systems as well as low-flow water fixtures are installed to promote conservation.
- OWC (Organic Waste Converter) – dry waste and wet waste.
- 100% organic waste management, post occupancy
- Solar panels/EV charging/sun path analysis

## NAVIGATING THE BUYERS FOR SUSTAINABLE INFRASTRUCTURE

Sustainable practices are revolutionizing the industry and shaping the future of real estate. And buyers today are increasingly interested in homes equipped with advanced technology for convenience and energy savings. Hence, developers are incorporating smart home features like energy-efficient appliances, home automation, and security systems. By prioritizing sustainability, developers can gain a competitive edge while also attracting more environmentally conscious customers.

## WAY FORWARD

Sustainable construction is a transformation that can alter the way buildings are designed, constructed, and operated. Its multifold benefits, from environmental preservation to overall well-being and regulatory compliance, have made it an important focus. Investing in sustainable construction enables us to build a healthier, greener, safer, and more resilient future. Though sustainability is gaining prominence, a gap exists in the wider adoption and integration of sustainable practices across the industry to drive a more sustainable future in Indian real estate. ■