Construction

How can the construction industry become more sustainable?

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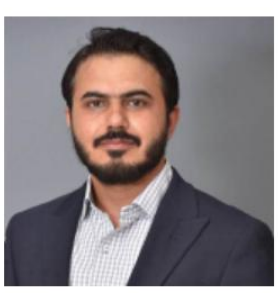
Sustainability is no longer just a buzzword but a fundamental goal towards which companies across all industries are striving. The construction industry can become more sustainable via various practices, such as better planning, minimal use of water and electricity, and responsible waste dumping.



The construction sector is the driving force behind any economy. Besides enabling individuals to have their own homes, the construction sector generates employment for millions of people in the country. However, due to unplanned development, environmental degradation has reached dangerous levels. The impact of climate change and global warming is visible and can be felt.

Due to its massive impact on climate change, the real estate sector holds the additional responsibility of reducing its carbon footprint as much as possible and creating a sustainable future.

Sustainability is a broad term. It is a multidisciplinary concept, which needs to be handled carefully to maintain the delicate balance between economy, finance, culture, ecology and the environment. Ignoring even one aspect can lead to the failure of the entire project in terms of sustainability. In this article, we will discuss how the construction industry can contribute to reducing environmental degradation and help create a sustainable future.

Planning and impact analysis

Planning is the most critical part of any project. Real estate developers should take extra care during this phase. They need to invest in technologies such as Geographic Information System (GIS) and Building Information Modelling (BIM), among others, to fully understand the long-term and short-term impact of their project.

The impact assessment should also be on the lines of social, cultural and ecological perspectives. Developers must be open to making the necessary changes to mitigate the consequences of harmful impacts.

Sustainable building material

Building materials leave a substantial environmental footprint along their entire value chain as well as during the building lifecycle. Developers can switch to sustainable building materials to reduce a real estate project's impact on the environment. Examples of such materials include fly ash bricks, precast concrete slabs, recycled plastic, steel and wood, and bamboo. An increasing number of innovative construction materials are made available in the market every year.

The use of sustainable materials can offer several benefits to builders. These include reduced maintenance replacement costs, energy conservation, improved occupant health, and greater design flexibility.

Minimal use of water and electricity

Designing and building projects to minimize the use of electricity and water can be the key contribution towards sustainability. Buildings with ample sunlight and ventilation use less energy. Structures should also be designed to minimise the need for Heating, Ventilation and Air Conditioning (HVAC) to reduce energy consumption. Developers can also utilise reusing, recycling and rainwater harvesting techniques to conserve more water.

Reduce wastages and recycle material

Material wastage is one of the most significant issues faced by real estate projects. Construction materials such as cement, concrete, plastic, metal and wood get wasted due to improper planning, inept handling and lack of provisions to reuse. Companies can save money and reduce wastage by properly planning their material supply and training personnel in such regard.

Responsible dumping of waste

No project can reuse or recycle its entire waste. Project managers need to take utmost care and responsibly dump their waste. They must dispose of the waste so that it does not harm the local ecology by polluting land, water or air.

Treat wastewater

Construction consumes enormous amounts of water and generates a considerable amount of wastewater, which is often mixed with cement and concrete. This water generally makes its way underground or to local water bodies. This phenomenon causes land, surface water and underground water pollution.

Even after completion and during their usage, real estate projects generate vast amounts of wastewater, i.e. blackwater and greywater. These projects can significantly contribute to environmental conservation by scientifically treating their wastewater.

The methods stated above are some of the many ways by which the construction industry can contribute towards environmental sustainability. However, it is easier said than done. Switching from traditional means to sustainable methods involves costs. The Central Government and the various State governments need to extend a helping hand to help the industry achieve its sustainability goals. Customers should also be willing to spend more on environmentally-friendly real estate projects.