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Infrastructure trends to build a sustainable world

#Infrastructure

#Property Punditz



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Infrastructure lays the foundation of any modern economy. Countries invest millions of dollars every year to build new infrastructure to sustain their economic growth. After the pandemic, infrastructure spending has been one of the key catalysts for growth and recovery across the globe. Many companies are resorting to various infrastructure trends that ensure minimum harm to the environment and are catalyst in creating a sustainable world.

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In India, infrastructure development is the priority area of the current government. The aim is to provide last-mile connectivity and facilities like healthcare and education to its citizens and give economic stimulus in the form of jobs and capital expenditure. On the flip side, infrastructure can have long-term implications for the environment and communities.

It is estimated that [infrastructure development](#) and operation account for more than 60 percent of global emissions. Improper planning and execution of infrastructure projects can have catastrophic implications for surrounding populations and the environment. As infrastructure projects involve huge costs in terms of both capital and resources, abandoning or redoing any project is either impossible or financially fatal. This leaves practically no scope for any mistake. Therefore, it is extremely important to develop sustainable and future-proof infrastructure.

Safety has always been the primary consideration in infrastructure projects.

Infrastructure projects have very long lifecycles; therefore, it is not only enough to consider the immediate safety or safety a few years down the line. Infrastructure developers are increasingly taking into account factors like climate change and global warming while planning their projects. Geospatial technologies like Global Positioning System (GPS) and Geographic Information System (GIS) are increasingly being used in planning. These technologies help select the best possible project sites and analyse historical data and prevailing trends to develop computer models to predict future circumstances and events. This helps develop designs that can sustain climatic changes and sudden natural events and be adjusted to meet the demands decades later.

Carbon neutrality is another buzzword in the infrastructure sector. Infrastructure developers are expected to keep environmental implications at the centre of project design, construction, and execution of projects. Governments have already started incentivising the contribution of developers towards carbon neutrality and environment conservation. Use of [green construction](#) material, utilisation of local resources, energy-efficient equipment, renewable sources of energy, maintained plantations, and measures to mitigate the damages done to local ecology are some of the many ways infrastructure projects can contribute to carbon neutrality and environmental protection conservation. Environmental focus in infrastructure projects is the ongoing trend that will gain further momentum in the years to come.

Infrastructure projects not only consume a huge amount of capital and resources but also influence and are influenced by various other socio-economic factors. As public awareness increases and socio-political factors become significant, the risk for infrastructure projects increases. Modern-day financiers have broadened their risk assessment spectrum for infrastructure projects. Now they are not only considering the financial sustainability of the projects but also the social and environmental aspects. Climate change can have adverse impacts on a particular project. A project needs to be designed and built to withstand future events caused by changes in climatic conditions or other environmental factors. The diversity in the management team is also considered an important factor.

Projects with senior management comprising people from different genders, ethnicities, and socio-economic backgrounds are considered safer financing avenues than those with a homogenous mix. Diversity in the talent pool helps organisations to adapt, innovate and navigate through tough periods. Infrastructure projects and society interact at every stage. Infrastructure projects need to be designed to care for society. Ecological concerns, human rights, labour safety, equal payment to genders, and animal welfare are some of the social factors that differentiate between a risky and a safe project. Any ignorance of any of these factors can lead to public uproar and ultimately lead to the failure or cost overruns of the projects. Needless to say that the financiers find it easier to finance socially responsible projects.

Environmental, Social, and Governance (ESG) financing is all set to gain more and more momentum in the years to come. This type of financing is one of the most important drifts in infrastructure that will lead towards sustainability, pushing organisations to develop projects that ensure minimum harm to the environment, promote ecological balance, and build structures to stand the test of time.