

# **SUSTAINABILITY OF INFRASTRUCTURE**

## **- THE NEED FOR A REASSESSMENT.**

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### **Abstract**

The increased awareness of the effects of ecological imbalances associated with construction and industry forced several corporate and governmental bodies to look at the avenues for sustainability over a broad spectrum in the 21<sup>st</sup> century. Most of these industrial and other associations, both government and private, started to look for the path to sustainability in a wide variety of sectors ranging from energy, urban development, corporate, agriculture, food and even in fashion and to meet the requirements through the three known pillars of sustainability - environmental, societal and economic. Coming to Infrastructure, sustainability is crucial part where the activities of design, construction, conservation of resources for future generations and produce light weight resilient structures having high strength and performance which improves the life span of the structure. Sustainability towards infrastructure and its intricacies plays a tremendous role in the assessment methodologies and the governing principles have to satisfy the requirements of three pillars of sustainability without compromising the strength and performance of the structure. The present paper is an effort to present a comprehensive outline for the sustainability of resilient infrastructure, activities related to construction and prefabrication, its importance, and its assessment methodologies available presently. Policies like minimization of construction materials, energy conservation and use of construction and demolition waste, apart from industrial waste byproducts which intern reduces the impact on environment and also minimizes the emission of CO<sub>2</sub> are advocated. It is felt that innovative, environmentally friendly and appropriate utilization of materials based on effective research and developmental outcomes are needed. Apart from this the suitability, appropriateness and limitations of each of the assessment methodologies for ensuring an extended lifespan in particular for the infrastructure are discussed. The aim is leaving the smallest footprint, while suggesting the possible avenues to achieve lasting structural facilities in all forms of infrastructure.