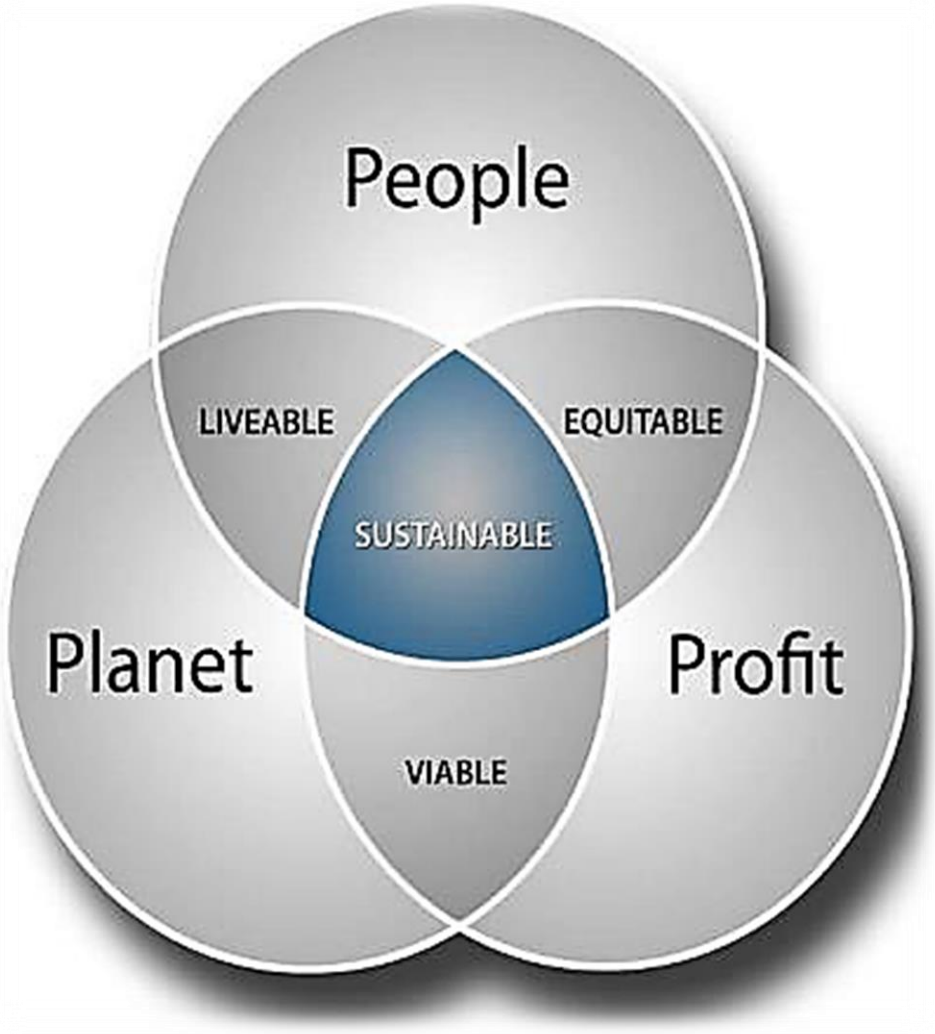
CHALLENGES & ROADBLOCKS TO SUSTAINABLE PRACTICES IN THE CONSTRUCTION PROCESS

BRIGADE

Sustainable Development: A economical development with responsible consumption of available natural resources to meet present demands without compromising the ability of future generations to meet their own needs.

(***This definition was given by the Brundtland Commission in its report "Our Common Future" (1987), US***)



Sustainable Construction:

The Environmental Protection Agency **defines sustainable construction** as "the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's lifecycle, from siting to design, construction, operation, maintenance, renovation and deconstruction."

Need for Sustainable Construction:

The global construction industry is **responsible** for

- ***more than 30% of the world's natural-resource extraction***
- ***quarter (it varies up to 50%) of the solid waste generated.***
- ***major contributors for global emissions***

According to the World Green Building Council, the construction and operation of buildings accounts for **36% of global energy use** and **39%** of energy-related CO2 emissions.

The issues highlighted above have been the driving force for more sustainable construction and the need to build 'green'.

Benefits of Sustainable Construction Practices :

Sustainable building isn't just good for the environment, although that is a fantastic reason to adopt sustainable practices. There are many benefits to adopting eco-friendly methods in the construction industry, such as:

- *Promotes Healthier Life (Construction of Green buildings)*
- *Reduce Waste (Recycled products, less harmful chemicals and more renewable construction materials used)*
- *Boost the Economy (Increased demand for labors, boosts green building industry, which is a major economical driver for any country)*
- *Promotes Sustainability (Renewable energy promotion, efficient utilization of resources, more people will witness the efficiency of green buildings).*

Challenges & Roadblocks in Adopting Sustainable Techniques in Construction Process:

- *Higher Capital Cost (The green buildings have an added cost of 5% - 15% (compared to a conventional building) and that the payback period is usually 3 - 5 years)*
- *Lack of Information Gathering*
- *Lack of Training & Awareness (Both technical & managerial)*
- *Gaps in Design Processes*
- *Lacunas in Construction Process*
- *Constraints in Selection of materials and technologies*
- *Lack of Regulatory mandates*
- *Lack of Willingness & commitments (The willingness to go for green buildings with additional cost is yet to be improved in India as compared to Western countries)*

Thank You