Building the Future: Benefits of Green Building

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ABSTRACT

The adverse effect of climate change will become irreparable if the design of the buildings are not changed now. Buildings create about 40% of the world's carbon emissions. To reduce carbon emissions, usage of fossil fuel energy reduction is vital. Fossil fuel emissions are also the main source of global warming, one of the most persistent observational issues facing humanity today.

•There are enormous amount of Environmental benefits of green building or sustainable building, such as: Enhance and protect biodiversity and ecosystems; Improve air and water quality; Reduce waste streams; Conserve and restore natural resources. Green buildings are a global solution for cities, communities and neighborhoods. Through sustainable design, construction and operations, green buildings are reducing carbon emissions, energy and waste, conserving water, prioritizing safer materials, and lowering exposure to toxins. Enhancing the energy efficiency of structures has been a staple of energy policies. The key goal is to slash electricity usage in order to minimize the footprint of houses.

•A sustainable building or green building is an outcome of a design idea which focuses on increasing the efficiency of resource use: energy, water, and materials, while reducing building impacts on human health and the environment. The design, construction, operation, maintenance of buildings normally require enormous amounts of energy, water and raw materials, generating large quantities of waste causing air and water pollution. Whereas green buildings is the only answer through creating healthier and more resource efficient models of construction, renovation, operation and maintenance.

•Green buildings may incorporate sustainable materials in the construction for example: reused, recycled-content, or made from renewable resources; create healthy indoor environments with minimal pollutants, and/or feature landscaping that reduces water usage. Use of fossil fuel energy should be replaced with sustainable green energy. This study explores the wide field of sustainable building or green building.

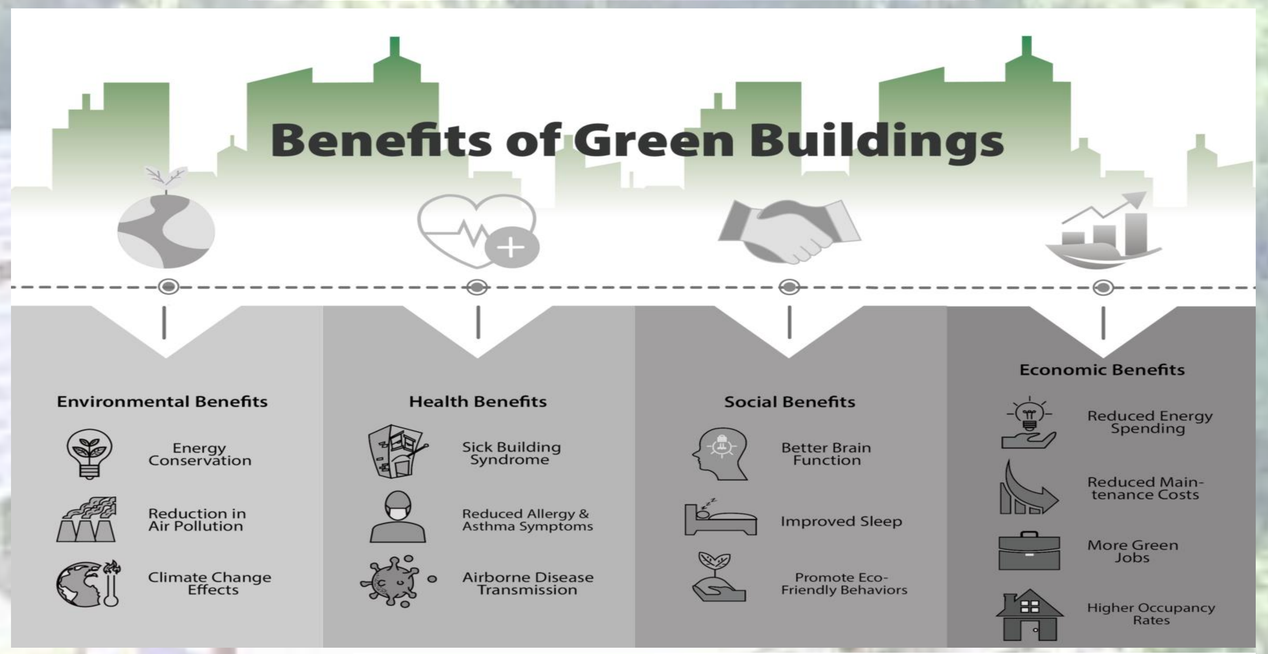
What is Green Building

A 'Green' building is a building that describe a building and its construction process, its design, operation, and reduces or eliminates negative impacts on environment. Green buildings preserve precious natural resources, enable people, profits, improve the quality of life and the planet to prosper.

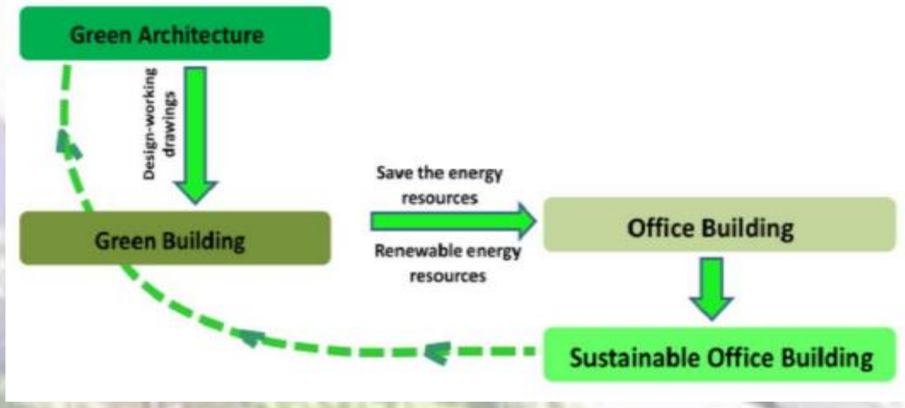
There are a number of features which can make a building 'green'. These include:

- Efficient use of energy, water and other resources
- Use of renewable energy, such as solar energy
- Pollution and waste reduction measures, and the enabling of re-use and recycling
- Good indoor environmental air quality
- Use of materials that are non-toxic, ethical and sustainable

Benefits of Green Buildings



Methodology



Sustainable Construction & Changing the Future

Sustainable construction includes using renewable and recyclable materials on building construction to reduce energy consumption and toxic waste. The primary goal is to decrease the industry's impact on the environment by utilizing sustainable construction procedures, practicing energy efficiency, and coupling green technology.

Sustainable construction isn't just about using renewable materials; it's also about implementing methods that enhance sustainable efforts. Some of these sustainable efforts include:

● Limiting the materials used to reduce waste; ● Controlling waste management, such as separating and recycling waste; ● Constructing green buildings; ● Adaptive reuse projects that transform old buildings; ● Managing construction sites to improve conservation efforts; ● Examples include treating water on-site, no smoking, recycling food containers, etc.; ● Conserving energy; Choosing sustainable and recycled materials.

Conclusion

Sustainable Green Building Construction will have a positive impact on the environment, reduce the usage of fossil fuel, have a green environment and improve the quality of life for our future generation.

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