

# CONTROL OF CARBON BUILDING

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## ABSTRACT

*In the world there are many countries, some of them are developed countries and some of them are developing countries. The real estate has become a rate of development in major cities is alarming and in many cases it is of haphazard nature and now developed as hubs for various service industries. No doubt this development is important and is contributing to economic growth. The industrialization due to globalization caused the real estate development in metros, which is really at its peak. Increasing urbanization and industrialization has given boost to construction industry in general and number of apartments, complexes, skyscrapers etc. Including industrial building, dams, roads etc. are coming up at rapid speed. Most of the structures are designed by engineers and architects with new ideas and innovations. In the busy schedule of construction of buildings, roads, etc. we are forgetting some important thing at is we are 'harming environment'. In the construction field there is no eco friendly system. Carbon may ultimately prove to be dangerous to human life, animals, as well as environment hence it is needed to find solution to overcome this environmental problem. Less carbon building is the technique to release little or no carbon during the rapid constructions. The ability of a society, an ecosystem, or any such interactive system to function without exhausting key resources and without adversely affecting the environment. Development can also be defined in technical terms as a development path along which the maximization of human well being for today's generation does not lead to declines in future well being. A building has become widely used term and concept in the public debate on responsibility and abatement action against the threat of global climate change.*

**Keywords:** - Control of carbon building

## INTRODUCTION

The real estate has become a rate of development in major cities it is alarming and in many cases it is of haphazard nature and now developed as hubs for various service industries. No doubt this development is important and is contributing to economical growth. The industrialization due to globalization caused the real estate development in metros, which is really at its peak. In developing countries there is an amazing rate of economic development. Increasing urbanization and industrialization has given boost to construction industry in general and number of bungalows, apartments, commercial complex, skyscrapers and many other structures including industrial building, dams and roads are coming up at rapid rate. Most of the structures are designed by engineers and architects with innovative concepts. It is observed that in many cases, environmental aspects are ignored leading to uncomfortable habitat and increased maintenance requirements causing threat to environment. which may ultimately prove to be dangerous to human life as well as environment, hence it is needed to find solution to overcome this environmental problem due to rapid construction.

## BUILDING DEVELOPMENT

Development can also be defined in technical terms as a development path along which the maximization of human well-being for today's generations does not lead to declines in future well-being. In short building is one that is economically viable, environmentally benign, and socially acceptable. The ability of a society, an ecosystem, or any such interactive system to function without exhausting key resources and without adversely affecting the environment.

- Optimize site/ exiting structures potential.
- Optimize energy use
- Protect and conserve water
- Use environmentally preferable materials
- Enhance indoor environmentally quality
- Optimize operational and maintenance practices.



Fig.1 Development

### Carbon Footprints

Carbon footprints have become a widely used term and concept in the public debate on responsibility and abatement action against the threat of global climate change. It had a tremendous increase in public appearance over the last few months and years and is now a buzzword widely used across the media. A carbon footprint is a measure of the impact our activities have on the environment, and in particular climate change. The carbon footprint is a measure of the exclusive total amount of carbon dioxide emissions that is directly and indirectly caused by an activity or is accumulated over the life stages of a product. This includes activities like burning fossil fuels for electricity, heating, manufacturing building materials, etc.

### Building and Climate Change

Energy consumption in buildings is expected to increase substantially due to economic growth, construction growth and human development. The demand for energy to run appliances such as TVs, air conditioning and heating units, refrigerators and mobile phone charges will increase substantially as living standards rise. The growth in commercial sector and the shift from rural to urban living will continue to take place. This will result in a substantial increase in resultant emission from the buildings sector alone and need concrete efforts to bring down the energy consumption by buildings through various measures. The carbon is released in the atmosphere during following stages of building life.

- Building construction
- Building deconstruction
- Building renovation
- Building operation



Fig.2 climate change

Carbon is nothing but the amount of carbon created at the end of building lifespan looking at removing each material and product. This could be demolition, disposal and preparation of the land for the next construction

OR deconstruction and dismantling for salvage, recycling, reuse and reclaim incineration of demolition wastes, decomposition in landfills.

### Techniques of Control of Carbon Building

- Choose recycled materials for the building construction
- Sources Local Material
- Proper Site Selection
- Construction of Cool Roof

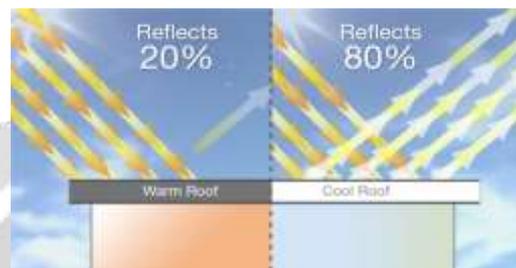


Fig.3 cool roof

- Day-Lighting
- Wind Towers
- Building integrated PV system
- Wind Mills
- Carbon Offsets



Fig.4 wind mills

### CONCLUSIONS

“Control of carbon building “ not only helps in increasing efficiency of building but also helps in reducing carbon emission which is main cause for climate change and related environmental problem. Hence to protect future of next generation we should pro-active in this global issue. It can be finally concluded that ‘Control of Carbon Building is Building Today for Tomorrow’.

## REFERENCES

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