



GreenHabitat

"A newsletter on Green Buildings"

From Indian Green Building Council, CII-Sohrabji Godrej Green Business Centre



Message from the Chairman

Dear Friends,

At the outset, it is very gratifying for me to assume responsibility as the Chairman of the Indian Green Building Council (IGBC), at a time, when the Green Building movement in India has taken off brilliantly. This also has come in at a time when the construction industry is witnessing unprecedented growth.



Parasu, as the Chairman of the IGBC has nurtured the Council since its inception in 2001. He has contributed immensely to the growth of the Indian Green Building Council and the Green Building movement in India.

The 60+ green buildings with a footprint of 13.5 million sq.ft coming up in the country, involvement of top CEO's in the movement, growth of the annual event 'Green Building Congress' over the years and representing India at the World Green Building Council (WGBC), are some of the major achievements through Parasu's dedicated involvement.

With all these tall accolades, my assignment looks relatively easier, but in reality it is much more complex. It is more challenging because we now need to take the Green movement to a much higher pedestal. I personally see 3 major challenges ahead of us:

- Capacity building - Develop professionals with green building skills
- Involve and engage all the stakeholders in the green building movement, and
- Develop many more new green building materials and products

Personally, I welcome these kind of challenges. Having said this, I must also say that these challenges come with huge opportunities. We clearly see green building business opportunities emerging for Architects, Builders, Consultants and Manufacturers.

While trying to measure up to these challenges and embracing the opportunities, I seek the participation and support of the IGBC members and the construction industry fraternity.

India is being reckoned as a major player in the international green building arena. I am confident together we will accomplish and even surpass IGBC's vision of making India one of the global leaders in Green Buildings by the year 2012.

Best personal regards,

Dr Prem C Jain

World Green Building Council, Mexico

The World Green Building Council (WGBC) meeting was held between 29th October and 1st November 2006 coinciding with a 4-day conference and Exhibition organized by the Mexico GBC at Monterrey, Mexico.

Mr. Parasu Raman R who participated in the meeting was elected Vice-Chair of WGBC.

Mr. Kevin Hydes, Chair, US Green Building Council has been elected as the new Chairman of WGBC.

WGBC would work on the following areas in the next couple of years:

- Clinton Climate Initiatives:** The USGBC has signed an MoU with Clinton Climate Initiatives (CCI) to engage large cities in reduction of carbon emissions program. The WGBC would take it forward by deploying technical expertise and implementing measurable initiatives in the areas of buildings, power, water and transportation. CCI has selected Delhi amongst 45 cities in the world and Mumbai could also get added.
- Sustainable Building and Construction Initiatives (SBCI):** This is a global initiative of the UNEP's division of Technology, Industry and Economics. As part of this initiative, WGBC would partner with SBCI to develop sustainable building codes across the globe.



Mr. Parasu Raman R addressing the Mexico Conference



Police Bhavan at Gulbarga

Karnataka State Police Housing Corporation Ltd (KSPHC), an ISO 9001-2000 certified company, proudly dedicated the 'Police Bhavan' in Gulbarga which is India's first Green Building in the Government Sector. It is also the first Non-AC LEED rated building in India.

The two-storeyed office complex effectively uses the existing landscapes, recycled building materials, renewable sources of energy and water conservation techniques. The building houses about 100 police personnel in a built-in area of 30000sft.

The building has recently achieved "Gold rating" under the LEED NC programme.

Green Features of Police Bhavan at Gulbarga

Passive Architecture

This is an evaporative cooling technique, in which outdoor hot air is cooled by cold water. The latent heat of air is used to evaporate water, thus cooling the air, which in turn cools the living space of the building. It is inexpensive when compared to Conventional cooling systems.



Daylight Harvesting

Large size windows are designed for maximum sunlight inside the building, thereby minimizing the use of electrical energy during the day. Use of special glass panes reduces heat radiation from coming in. Solar lights are provided all around the building for illumination during the night.



Root Zone Treatment System (RZTS)

They are planted filter beds consisting of sand/gravel/soil. RZTS uses a natural way to effectively treat domestic and industrial effluents. The waste water flows through the root zone horizontally, where the organic pollutants are decomposed by the bacteria present in the rhizosphere of root plants as well as protecting the environment.



Roof Top Garden

Roof Top garden is installed on the top floor. On account of this, there is significant reduction in the heat ingress into the building.



High Albedo Paint (Thermo Shield)

On the roof over conference hall, high albedo paint (Thermo Shield) is applied to reflect the solar heat. The paints also act as water proofing agent and keeps the building cool.



Conservation of water

Waterless urinals eliminates consumption of potable water.



Solar Energy

Solar PV are installed for domestic & street lighting and water pumping. The building has solar powered water pumps for pumping continuous water required for the operation of wind towers.



Thermal Comfort

In order to measure the thermal comfort levels in the Building, sensors are placed to measure temperature, humidity etc., and these measured values are available online for correction, wherever necessary.



Rain Water Harvesting

The building harvests rain water by collecting water from the roof-top surface. The collected water in the sump tank is used for circulation in wind towers by pumping through solar pumps. Extra water collected in the sump tank flows to percolation pits to recharge the bore-well.



Composite Masonry

Composite stone and brick masonry sandwiched with rat traps insulate the building against heat from solar radiation. Terrace green grass, china mosaic over covered vaults too help reduce the effects of heat radiation. Pseudo traingular pillars enhance architectural beauty of the building.

List of Green Buildings Registered for Rating (Since 2006)

The Green Building Movement in India is advancing at a rapid pace. During the last one year about 10.7 million sft of Green Building Footprint has been registered out of a total 15 million sft registered during the past four years. Some of the recently registered projects are as under:

S.No.	Name of the Project	Type	Built-in Area (Sq ft)
1	ABN Amro, Ahmedabad	Bank	8000
2	ABN Amro Bank, Chennai	Bank	80000
3	AMTI Tech Park, Chennai	IT Park	3,98,000
4	Ashok Leyland Properties, Chennai	Office	150000
5	Cethar Vessels, Trichy	Office	125000
6	Chennai Tech Park, Chennai	IT Park	1800000
7	ECCI Info Park, Chennai	IT Park	5,40,000
8	ETL BPO Park, Chennai	IT Park	1200000
9	GMS Construction Co. Pvt Ltd.,	Office	130000
10	HSBC, Hyderabad	Bank	200000
11	Infinity (Benchmark), Kolkatta	IT Park	550000
12	L & T, Hazira	Office	35000
13	Lake Plaza Hotels (Park), Hyderabad	Hotel	340000
14	Lodha (Apollo Mills Compound), Mumbai	Office	100000
15	Lodha (i-THINK campus), Mumbai	IT Park	2000000
16	Microsoft, Hyderabad	IT office	550000
17	Minestone Green Diamonds, Navsari	Diamond Polishing Unit	40,000
18	Rane Institute for Employee Development, Chennai	Institute	16,500
19	RMZ Millennia Business Park, Chennai	Office	1800000
20	Spectral Services Consultants Pvt Ltd, Noida	Corporate Office	15000
21	Srijan Properties Pvt. Ltd., Kolkatta	IT Park	400000
22	Synthesis Business Park, Kolkatta	IT Park	6,50,000
23	Tata Chemicals, Hyderabad	Laboratory & Office	18000
24	Tata Xylem Building, Bangalore	Office	5,70,000
25	TCS, Bhubaneshwar	Office	120000
26	TCS, Trivandrum	Office	40000
27	Thermax, Pune	Office	100000
28	Time Square, Mumbai	IT Office	450000
29	Turbo Energy Limited, Chennai	Office	20000
30	Urbane Industries, Chennai	Office	7,000
31	Wipro, Kochi	Office	100000

LEED India programme Launched

LEED India rating system is in force effective January 1, 2007. Green building projects have already started registering for the LEED India Rating.

The LEED India considers local guidelines and standards, wherever available. The local standards referenced in LEED India include NBC (National Building Code), Pollution Control Board regulations, ECBC (Energy Conservation Building Code) etc.,

Projects can now directly register online at www.igbc.in. The LEED India rating is now available for NC (New Construction) projects. Other LEED programmes like LEED CS (Core & Shell), LEED for CI (Commercial Interiors) will also be released shortly.

If you are constructing a building, Go Green!

CII-Godrej GBC offers Green Building Advisory Services in India to achieve LEED green building rating.

For assistance, kindly contact:

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