



## "Govt should recognise buildings consuming lesser energy"

Dr P C Jain, Chairman, Indian Green Building Council, and CMD, Spectral Services, elaborates on the country's green agenda while talking to Renu Rajaram

**The aim of the Indian Green Building Council is to achieve one billion sq ft of green space by 2012. How do you intend to achieve this?**

My mission as Chairman of the IGBC is to produce at least one sq ft of green space per every Indian, thus the target is one billion sq ft of green space by 2012. For this purpose, me and my team members are going around India, spreading awareness among students, professionals, builders and developers, and requesting them to add to the kitty of India's green building footprint.

What we have been able to achieve is 270 million sq ft till now. We should reach 300 million in next few months and by the end of 2012 we should reach the mark.

**How do you intend to ensure participation of more AEC professionals in this mission?**

First, our team members teach the AEC professionals and students about the importance of green. I teach at the School of Planning & Architecture (SPA), New Delhi.

Second, we conduct the Green Building Congress every year. The Congress is on a city-to-city tour. And in each city, the participants including students, architects, and other professionals, attend the Congress widening their knowledge on green concepts. They become enthusiastic about carrying the green parameters forward. Many schools are also invited to participate in the competitions organised. Once in six months we conduct workshop on sustainable architecture for students.

**What initiative shall come from the Government to make this movement successful?**

The Government should have measures that are transparent. The IGBC can provide them. But the Government has not recognised IGBC. We are hoping that we can prevail upon the Government by hovering through the government buildings and converting the existing government buildings into green buildings. We have got ESCOs (Energy Service Companies), which would invest money to make these buildings green. Eventually the Government, seeing the advantages of green buildings, is likely to bend bars and take some resolutions.

**Is it necessary to imbibe few green laws for construction?**

Not really, in my opinion they should be particular to imbibe the Energy Conservation Building Code (ECBC) and some can be better built with initiatives like green certification. We do not need green rules or laws as such. The Government should recognise buildings consuming lesser energy or having greener footprint. This can, perhaps, be promoted by the Government by granting benefits like lower property tax, lower tariff for power and so on, based on the performance of the building.

Every builder needs to follow the ECBC, which came into existence in July 2007, implied by the

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Lower perspective: GreenSpaces



GreenSpaces entry drop-off in the east

Bureau of Energy Efficiency (BEE). This is a prime-ministerial initiative. Now it is only recommendatory. But by next year we are trying to make it mandatory. Every building should comply with the ECBC. This becomes the pre-requisite. The green building concept starts from there. But if the energy consumption is meeting ECBC and above, may be 10 percent, 20 percent or 30 percent more efficient, then we give green ratings for the buildings. It is expected that the ECBC will be mandatory by 2009 and going green in next three to four years.

#### How do we meet the growing demand for green building material, equipment and building services?

This was among the major problems faced and discussed by many architects at the last Congress. Yes, it is true that one of our roadblocks has been non-availability of green material in the country. By green we mean that the product should have very low embedded energy in the manufacturing stage and should be recyclable. Now the only such products available in the Indian market are flooring & ceiling material, carpets, and few non-VOC paints. We need many products in steel, wood, cement and so on, which are not yet available in India. At the exhibitions organised by the IGBC, we invite many foreign producers, which also attract local manufacturers and prompt them to make the green material locally. But still the growth is very low.

The production cost is very high since we depend on other countries for equipment to manufacture green building material. Eventually, in the next few years, it could be manufactured in India. Then automatically the availability of green products will increase and thus 'green' may not cost more.

#### Are you planning for any kind of certification for the products as well?

Not by the IGBC. The Government will certify. Similar to the star rating given to window air-conditioners, certification will be awarded to better products.

#### Most of the buildings that are certified are commercial ones. What about the concept seeping in other areas such as residential, hospitality and education?

We started our IGBC Green Home Programme in May 2008 and already have 90 million sq ft of green homes. So it is not only confined to the commercial buildings.

There are several hospitals in India like Wockhardt, which want all their buildings to be green. There are many Indian schools, which have opted for green buildings.

#### What are the measures taken by the IGBC to bring into the stream more institutions and industries?

We are working on the IGBC Green School Programme and IGBC Green Industry Programme. The guidelines for the same would be ready by 2009 and be made available to the people by 2010.

#### What are your plans to advance the Government too towards your aim?

The Government now cares for green buildings. The Central Public Works Department (CPWD) has approached agencies for refurbishing their buildings to green ones. We are working with them and ESCOs are helping the CPWD in converting existing buildings into green buildings. ESCOs finance the project and already four government organisations have approached the IGBC for support, including the Ministry of External Affairs, New Delhi. Refurbishment of their building is halfway through. Then there are three other state buildings that have approached us, and the designs for them are on our drawing board.

#### What about the mushrooming townships?

The USGBC has their Neighbourhood Development Programme for large-scale projects. This can be applied to India with some modification. This may be called as the IGBC Green City Programme. The groundwork for the programme is in fairly advanced stage. I believe that by June 2009 we will announce the IGBC Green City Programme.

All the new townships will have the option to become a green city. We will be looking at 60 or

70 buildings in a city. It would be macro scale assessment for the entire township. We put controls or norms based on certain criteria like power & water consumption, water & waste-water management and all these will be incorporated in the programme. Every architect and builder working on the township project would follow these norms. We provide the guidelines.

#### What are your current projects in preparation?

We would first announce the pilot programme for the IGBC Green City, IGBC Green Industry and IGBC Green School Programmes, subsequent to discussing the same with AEC professionals and builders followed by a joint session with stakeholders. Later it may become a regular manual. All the three programmes are in the pipeline.

#### Tell us about LEED 2009?

The US is coming up with LEED 3.0, which is also known as LEED 2009. At present they are following LEED 2.2, which is a 2007 product. In India, we follow the earlier version i.e., the LEED 1.0 programme. We have a long way to go to adopt LEED 3.0. We have to jump the LEED 2.2 to get there. It may take one year to reach LEED 2.2 and by 2011 we may adopt LEED 3.0. We have to talk with the USGBC before adopting it. No official communication has come yet regarding LEED 3.0. Once it is approved, we will have to work on adopting the norms and making it suitable for Indian conditions.

#### It is learnt that the LEED AP tests will be conducted in India soon. How do you plan to go about it?

By early 2009 either the IGBC AP or LEED AP test will be available in the country. Introduction of the IGBC AP has to be cleared by the USGBC. They will review the IGBC AP for approval and in case it is not approved, we will go for the LEED AP offered by the USGBC. The

test will be available online. It may take another three to four months to introduce it in India.

We will be giving training for the LEED AP / IGBC AP exams through conducting workshops at different places throughout the year, which would teach basics about LEED and the system. Then a briefing on the manual would be given. The LEED AP certification would be from the USGBC and IGBC AP certification from IGBC.

#### Are you satisfied with the pace of growth in the green movement in India?

Not at all... I wish we could do much more. We should have reached far more than what we have been able to do... more because of the slowdown. We hope to start a new chapter in Kochi in the later part of January 2009. In the present state of recession, nobody wants to talk about building, but of consolidation and survival. May be in next six months it will change. We are number two worldwide in terms of green footprint - those registered and going to become green. We are behind America in this respect. But it is not good enough.

#### What is your take on the present run for iconic buildings?

In my opinion, a building should be something that you feel happy to enter. Not taller, bigger or fatter buildings, which are termed as iconic. The most energy-efficient building would be the most iconic too.

#### What is your advice to young architects?

Adopt green measures. Take less from earth and give back more. Architects should work towards creating a healthy livable and rejuvenating world. In order to promote our heritage architecture we need to go back to our roots.

#### Tell us about your favourite project?

My favourite is GreenSpaces coming up at Faridabad near Delhi.

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