

Turning over a

GREEN LEAF

Green homes are the new buzzword in residential building projects as they promise saving in operational costs for the home owner but buyers would do well to check their credentials

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A BUSINESS TYCOON in Mumbai, a film personality in Hyderabad and a farm owner from Pune seemingly have little in common besides their wealth. What unites them is their passion for a cleaner, greener environment.

These three men, like three more top executives from Bangalore, Pune and Hyderabad, constitute the six individuals in India who are building residences that will use less electricity, cut down water wastage and provide their families a healthier environment to live in. And they will have a certificate to prove it.

All the buyers' names have been kept confidential by the Confederation of Indian Industries (CII) Green Building Centre (CII SGBCC) in Hyderabad, the first and only agency in India that certifies a 'green home'.

A green home is one that minimises the adverse environmental impact of modern construction methods by using, as far as possible, construction materials that are either made from recycled waste or from renewable resources, cuts down operational costs like electricity bills, recycles its waste judiciously and harvests rain water intelligently.

So fly-ash blocks and bricks replace the traditional kiln-fired clay bricks, the floor-to-window ratio is increased to allow more natural light in and special glass is used for the windows to cut down the heat transfer, among other measures.

Though green commercial buildings like the Wipro Technologies building and the ITC Green Centre, both at Gurgaon, have been around in India for five years now, awareness of their importance is just catching on. Given the skyrocketing prices of fuel and double-digit inflation, the demand for greener options should only accelerate.

Since it was set up in 2003, the CII SGBCC has received applications for certification from 63 registered residential projects across the country covering an area of 86.3 million sq ft, says Siva Kishan Nandyala, a counsellor at the Centre.

"The demand is largely from the metros and Tier II cities, but we have also received certification requests from far-off Guwahati too. The green commercial offices which have been widely advertised created awareness and convincing the environmentally-conscious has been easier after that," says Nandyala.

Benefits galore

Consider the statistics that Nandyala rattles off: though industry is commonly seen as the culprit when it comes to power consumption, the fact is that homes in India use 25 to 30 per cent of the electricity generated in the country. Because green homes are so designed that the heat transfer from outside to inside is minimised while the use of natural light is maximised, this translates into a reduced need for airconditioning and artificial lighting.

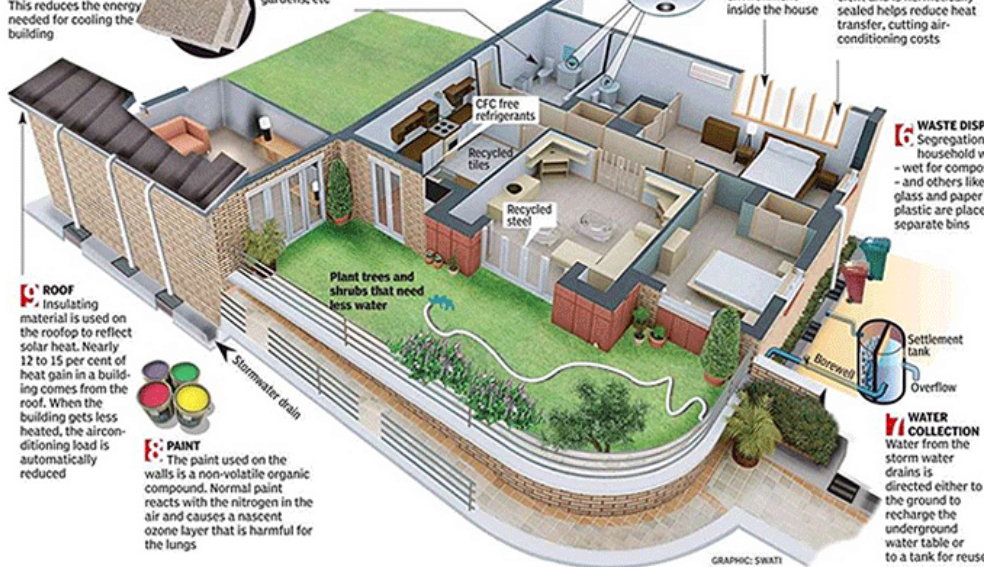
Bricks Instead of traditional bricks, use flyash blocks and bricks that are low in thermal conductivity. This reduces the energy needed for cooling the building

RECYCLED WATER A sewage treatment plant is set up on the site where the waste water is treated and this can be recycled for use in toilets, gardens, etc

WATER SAVER Aerators are placed in the faucets and fixtures to create more air bubbles in the water coming out of the faucets. This reduces water consumption by a whopping 30 per cent

FRESH AIR Large windows ensure good air circulation and a better environment inside the house

LOW U GLASS Glass that has a low solar heat gain coefficient and is hermetically sealed helps reduce heat transfer, cutting air-conditioning costs



The result: reduction in power consumption from anywhere between 20 to 30 per cent depending on the constructed area and the green construction methods used.

Some, like the Wipro Technologies and ITC Green Centre buildings, have even achieved energy savings of 40 and 45 per cent, while the CII SGBCC has effected even bigger power savings of 63 per cent. Xylem, the state-of-the-art IT Park of the Tata Housing Development Company (THDC) in Bangalore reports a 26 per cent saving of energy consumption due to energy-efficient air-conditioning, according to Brofin Banerjee, managing director of THDC.

These are clearly significant figures in a country where the energy consumption rate is expected to grow at 4.3 per cent.

That is what prompted Naveen Chopra, 38, an engineer by profession, to opt for a flat in Splendour, a green home under construction by Mahindra Lifespaces Development Limited (MLDL) in Mumbai. As a student of engineering in Chandigarh, Chopra had worked on a project on energy conservation with the Punjab Energy Development Association and says, "I was exposed to the environmental impact of energy consumption some 16 years ago. So when I had to put down my hard-earned money for a house in Mumbai, I looked at

the environmental side of the housing project."

Chopra says that at Rs 3,050 per sq ft, he may have paid marginally more ("say Rs 50 per sq ft") for the house he hopes to get possession of in January 2010, but "the extra cost will balance out by the savings on air-conditioning over a couple of years."

It is consumers like Naveen Chopra, ideally in the age group of 35 to 45 who are environmentally conscious, that the builders of green homes are targeting. Says Banerjee, "Due to the awareness created about environmental concerns, people do want to contribute and make a difference, and for some this could translate into the purchase of a green home. The target buyers for such projects are consumers who care for the environment and don't mind paying that little bit extra to ensure the preservation of the eco-system."

For vendors of residential properties, the green home concept helps break the clutter of a market flooded with upcoming residential complexes. As importantly, going green gives corporates a socially re-



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sponsible organisation tag, a much-valued addition in the current business environment.

Certification helps

If going green becomes the buzzword, how do consumers guard themselves against builders who might just attach a green home tag to a residential complex without the necessary modifications?

They should go by the LEED (Leadership in Energy and Environmental Design) green building rating system developed by the US Green Building Council. This system is applicable in India as well and depending on the number of green parameters used, a building is certified as platinum, gold and silver. In India, the Indian Green Buildings Council, set up in 2001, has developed a rating system for green buildings much like a CRISIL rating for a company.

According to Pawan Malhotra, chief executive officer and managing director of MLDL, "We have decided to go green for all our residential building projects in India.

Four of our projects so far are registered for the prestigious LEED - Core Structure certification for green buildings. We have also signed a memorandum of understanding with CII SGBCC for feasibility studies for all our ongoing projects."

THDC, which has two green residential properties coming up - Aquilla Heights in Bangalore and Raisina Residency in Gurgaon - describes it as "not just providing comfortable homes but also benefiting society."

Since there are no free lunches in life, one has to pay a little extra for a green building. Says Amit Pal, general manager, quality assurance and innovations, MLDL, "Generally, the cost of construction of a green building is four to five per cent more than that of a conventional building. But in Mahindra Lifespaces we use innovative construction techniques and building materials to minimise this cost impact."

According to THDC, the price would be higher by approximately two to five per cent both for the developer as well as the buyer. But, they also argue, the savings in the operational costs will help make up that extra cost in three years.

If they keep their promise, green could become the way to go for residential projects all over India.

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