60 "TODAY, WE HAVE LOT OF BUILDINGS WHICH ARE TERRIBLE"
DR PREM C JAIN, CHAIRMAN, INDIAN GREEN BUILDING COUNCIL.

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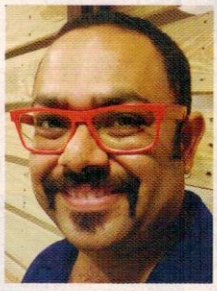
MIXED TRENDS

THE GROWTH TRENDS IN THE BUILDING PRODUCTS MARKET IN THE COUNTRY HAVE BEEN MIXED WITH SOME SEGMENTS, I.E., PAINTS, CERAMICS AND LIGHTING REGISTERING STRONG GROWTH, WHILE A FEW SEGMENTS, SUCH AS INTERIOR INFRASTRUCTURE (PLYWOOD), SANITARY WARE AND CABLES, WITNESSING SOME MODERATION.

A NORTHERN LIGHTS COMMUNICATIONS PUBLICATION

"I THINK OUR THINKING NEEDS TO SHIFT"

MANISH GULATI IS THE GUIDING AND THE DRIVING FACTOR BEHIND THE PURSUIT OF EXCELLENCE AT MANIFESTATION OF FLUID ARCHITECTURE (MOFA STUDIOS PVT LTD). AN ALUMNUS OF SCHOOL OF ARCHITECTURE, CEPT AHMEDABAD, HE HAS OVER 15 YEARS OF WORK EXPERIENCE. HE TALKS AT LENGTH TO **EPC&I** ON SUSTAINABILITY, WASTE MANAGEMENT, NEED FOR INCENTIVES WHILE SHEDDING LIGHT ON THE CONCEPT OF GREEN BUILDING.



What, according to you, is a Green Building? What are the parameters according to which a building could be considered Green?

Technically a green building is one which primarily

- Takes in lesser energy and resource but gives out more
- Creates its own energy to be able to live off the grid
- It is able to recycle its by products/ wastages to be used again and is if possible a zero discharge building.

But, architecturally a green building has many more intangible benefits. The quality of light and air directly affects the quality of life of the occupant. Lesser illnesses, more energy and productivity are also a direct resultant of Green Buildings as it vastly dependent on natural light, air and ventilation apart from the smart systems. A building is green when it improves the quality of life of the occupant as well.

What has been the acceptance level for such initiatives amongst the building community, considering that the construction cost is typically 3-5 percent higher compared to a conventional building, and the RE market has been hard hit by delays due to approvals and also a sluggish market?

The payback of the green building is tangible. Nowadays, the awareness and concern in the consumer is tremendous. They are the ones creating the market. Also, we have a land of limited resources; it makes business sense to be able to create an infrastructure, which is sustainable and charge for it rather than leave the customers high and dry in the middle of the journey as these are lifelong investments for most people.

> Sustainability is a way of life and thinking which begins with taking in less and giving out more.

What are the standardised regulations that need to be made by the governing bodies that can help curtail rising expenses of raw materials, where owners can go in for sustainable Green structures?

Incentive and rewards are the simplest way of promoting and highlighting a good initiative. Perhaps creating a subsidy for raw materials or products alone every time may not be the solution, the idea is to honour a working initiative not just the thought. So, people who are able to demonstrate and maintain the system should be given rebates. This ensures a working system.

Waste management of Solid, Liquid and gaseous forms form the backbone of Green Buildings planning. What laws needs to be adhered for industrial units and factories to ensure compliance and efficiency?

I think our thinking needs to shift. Human mind deals with the given situation every well provides they accept it. We should accept that at the moment the resource that we have plenty of is waste – of all kinds, solid, liquid and gaseous. One way would be to reduce the usage and generate less wastage to begin with but taking it forward, we should start using waste to create solutions. In our project head office for Delhi Pollution Control Committee, we have devised systems to use not only city generated waste as fuel but also utilise the waste generated again within the building itself.

What are the design challenges involved in creating green buildings for the 'optimization analysis to ensure optimal results to project owners?

In the end, a project is designed to suit the owners and occupants. Be it in the form of monetary optimisation or energy optimisation, it has to suit the client's requirement as well. In the end we are not creating energy-efficient, non-interactive closed boxes otherwise those can be created without Architects. Optimisation has to be taken into account while creating spaces, human comfort, psyche and habits are very big parameters of sustainability as well. Otherwise, we can create perfect systems which are not perfect for the occupants at all.

While green buildings are constructed using sustainable materials, how can smarter building designs run more efficiently and communicate effectively with their various systems?

The better and more sensitive the interface between human beings and Building management system better will be its performance. BMS-based apps on smart phones is one such example.

Today's system have become very tech savvy with smart sensors and control systems which have the ability to measure, sense and see the exact condition? What are the advantages of this technology and shortcomings? How have you employed such technology in your projects in India?
The advantage is that these systems really optimise the usage of water, Electricity and HVAC tremendously, reduce any wastage, but on the other end capital cost as well as maintenance of these systems, presently, is a bit on the higher side. More companies and products enter this market as well as increase in demand will subsequently improve the technology as well bring costs down.

At the end of it all, it is the common person who has limited knowledge about green initiatives who occupies the premises and uses the various technologies available to him/her. How can a modern occupier implement sustainable standards for eco-friendly way of living?
Sustainability is a way of life and thinking which begins with taking in less and giving out more. It can be implemented from the simplest of measures like recycling, segregating waste, lesser wastages, using sustainable and renewable technologies like solar geysers / lights, insist on getting a design which has as much natural light and ventilation as possible, which automatically translates into lesser dependence on limited resources.

"IT IS A MATTER OF GOOD STEWARDSHIP"

NISHA MATHEW GHOSH, ONE OF THE ARCHITECT-PARTNERS OF MATHEW AND GHOSH ARCHITECTS, SHARES WITH **EPC&I** HER UNIQUE TAKE ON GREEN BUILDING CONCEPT, WHICH ACCORDING TO HER IS ALL ABOUT BECOMING A GOOD STEWARD OF THE RESOURCES THAT GOD HAS GIVEN US.

Mathew and Ghosh Architects, in a relatively short span of time, have carved a niche for themselves with their inclusive thinking. Nisha Mathew Ghosh is one of the architect-partners of Mathew and Ghosh Architects, along with Soumitro Ghosh. A Graduate from The School of Architecture, CEPT, Ahmedabad along with Soumitro, her interests range from Urban Design to Jewellery Design. Mathew and Ghosh Architects have won numerous national and international Awards and acclaim for their Ideas via public competitions and built work that encompasses nano size projects to large ones. Based in Bangalore, India, the practice continues to innovate and look ahead.

What, according to you, is a Green Building? What are the parameters according to which a building could be considered Green?
The environmental situation has veered already towards critical, so it is imperative for us architects to 'think' ways that each project can give something back for the larger and greater good. There are known documented ways in which a building may be considered 'Green', and as the Bible says it is a matter of 'good stewardship'

What has been the acceptance level for such initiatives amongst the building community, considering that the construction cost is typically three to five percent higher compared to a conventional building, and the RE market has been hard hit by delays due to approvals and also a sluggish market?
Each sub-group of the building community has a perspective on it, so if we are talking about architects they are likely to be very supportive, but when it comes to Builders there could be financial/profit based parameters that determine the extent to which they will support 'Green' initiatives: similarly the corporate world will also orient towards it when the value that accrues to their environmental responsibility quotient makes a powerful statement of stewardship.

What are the standardised regulations that need to be made by the governing bodies that can help curtail rising expenses of raw materials, where owners can go in for sustainable Green structures?
As in everything, if there are attractive trade-offs introduced by the government then the rate at which people will want to 'go' Green' will rise exponentially.

While green buildings are constructed using sustainable materials, how can smarter building designs run more efficiently and communicate effectively with their various systems? Today's system have become very tech savvy with smart sensors and control systems which have the ability to measure, sense and see the exact condition? What are the advantages of this technology and shortcomings? How have you employed such technology in your projects in India?
It is a question of a greater fine-tuning and FOCUS. The ability to have systems work and coordinate, measure and sense is a wonderful way to ensure that there is a complete awareness of what is going on in terms of the building versus environment. However, it is necessary only in architectures of a certain kind and type, in certain contexts.

I am of the opinion that for day-to-day living, and I mean LIVING in the most abundant sense of the word, the obsession to measure and tabulate is not required; instead sufficient is the passion to be a good steward of all the resources that God has given us, and a beautiful relevant thinking architecture that best expresses it.