

Building with responsibility to the environment



ON Oct 31 the world's population surpassed the seven-billion mark. We have reached a significant milestone, but there was no cause for celebration.

As the population grows, so does the need for more food and shelter. This will put more pressure on available resources. It is only by adopting a culture of sustainability that we can ensure the future of our children is not compromised.

Just like in any other industry, the building sector will have to adopt new approaches that take into consideration the need to protect the environment and ensure sustainable development.

I am pleased to note that builders are already taking the first steps in that direction. The industry is already taking a serious view of "green building". The term refers to an environmentally-responsible process that covers the entire life-cycle of a building, from siting, design, construction, operation and maintenance to renovation and even demolition.

Similar steps are being taken by builders in Malaysia. Efforts made

by industry players, who have become more conscious of the need for sustainable development, have helped to put in place various guidelines to ensure new properties are developed using a more environmentally-friendly process.

For the industry, there is the Green Building Index (GBI), which was introduced in 2009 to assess and accredit a development along sustainable or "green" criteria. The Government had, in its Budget 2010, even given priority to the procurement of goods and services that are environmentally friendly.

One of the most pertinent objectives of the GBI environmental rating system is to transform the built environment to reduce its impact on its surroundings. Its other objectives include ensuring that new buildings remain relevant in the future and existing buildings are refurbished and upgraded properly to remain relevant.

Under the GBI, buildings are rated based on six criteria – energy efficiency, indoor environment quality, sustainable site planning and management, materials and resources, water efficiency as well as innovation.

More recently, the government has taken this initiative another step further by requiring that builders of commercial buildings now ensure that their projects meet GBI

standards.

At the same time, owners of bungalow and semi-detached residential units are required to put in place a system for harvesting rain water.

These are baby steps, yet, but they certainly show that there now is a desire in the industry as well as the government to ensure a more sustainable future for the benefit of the next generation.

The bottom line is that whatever we build now to provide a roof over our heads, it must not only not have a negative impact on the environment, it must also be able to enhance our surroundings and ensure we have a better quality of life.

While the environmental benefits of such efforts may not be immediately visible, they can also have a positive effect on corporate image, as well as the rental and resale value of buildings.

The BGI is based on Singapore's Building and Construction Authority (BCA) Green Mark that incorporates internationally recognised best practices in environmental design and performance. Among the benefits of the BCA Green Mark are reduction in water and energy bills, reduction in potential environmental impact, improvement of indoor environmental quality for a healthy and productive workplace and clear

direction for continual improvement.

However, like most things, efforts towards sustainable development come at a cost. In some areas, the additional cost may be low enough to be manageable, but in other areas, it may seem exceedingly high.

For instance, an apartment designed with large doors and windows will be more airy and thus require less energy to keep its interior cool. At the same time, it will not require a hefty increase in costs.

However, in other areas, ensuring sustainability could add substantially to the cost of development. For instance, builders could ensure that production methods of the materials used in their projects are also environmentally friendly. But that would entail verifying the entire supply chain for sustainability, and that may turn out to be a costly exercise.

At the same time, the returns from such efforts may still not be attractive enough for many of us. It has been estimated that even the most basic efforts at ensuring sustainability could add 5% to 6% to the building cost. In some cases, the cost could rise by up to 15%.

Even if such efforts eventually result in savings in energy use, it could take 15 to 20 years before such savings actually begin to offset

the additional costs that have to be incurred initially. And that is only the ringgit and sen part of it.

There are other costs too. To illustrate, let us take a look at the compact fluorescent bulb or "green" bulb. It uses 75% less energy than a traditional incandescent bulb but it also contains mercury that, if not disposed of properly, could cause contamination in the environment.

Builders will be hard-pressed to keep costs down and ensure sustainability in the procurement of raw materials and construction process at the same time. It, after all, does not make good business sense to build something that people are not prepared to pay for.

One would be tempted to argue for a balance between sustainability efforts and managing the costs. Strictly speaking, that would mean compromising on the need to ensure sustainability so we can save some money, and that's certainly not a long-term solution.

Perhaps a more comprehensive and concerted joint effort by the industry and government could be a start.

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