

## Greening buildings in baby steps

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By : [Jessica Cheam](#)

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BCA's policies have led to a number of showcase green buildings such as CleanTech One (pictured), but it still has some way to go. Image: JTC Corporation

From a domestic agency little known outside of Singapore, the Building and Construction Authority (BCA) has undergone a transformation in recent years to become a well-known outfit winning international awards for its forward-thinking green building policies.

While its central concern is still that of regulating buildings to ensure that past horrors like the Hotel New World and Nicoll Highway collapses in 1986 and 2004 respectively do not happen again, the BCA has extended its mission.

Dr John Keung, 58, the man at its helm, tells The Sunday Times that BCA believes its role is more than that, because it believes that people want it to deliver a world-class environment for living.

When he took over in 2006, the first thing he did was to create the first-ever 'CEO tea session' where he would talk to as many staff as possible to learn the issues.

From those discussions, BCA reinvented itself with a new mission that says: 'We shape a safe, high quality, sustainable and friendly built environment.'

'We believe these are the key deliverables for an excellent world class environment and that's what we should deliver,' Dr Keung says, adding that this contributes to BCA's vision of making Singapore a distinctive global city.

Under his watch, BCA has turned around its initially unpopular Green Mark scheme, which rates buildings for environmental performance, to a successful one that has greened 940 buildings or 12 per cent of Singapore's total gross floor area.

In fact, the scheme now reaches more than 10 countries and over 120 projects across Southeast Asia.

Last year, BCA became the first government agency outside North America to be conferred the prestigious Aspen Institute's Energy and Environment Award.

And just last week, BCA joined five other city authorities including San Francisco and New York to be highlighted by the World Green Building Council for leadership in government policy, bagging the Regional Leadership prize for its green building masterplan.

To some extent, its growing profile reflects a global trend of awareness of environment and sustainability issues. The building sector has gained attention for its role in reducing energy consumption.

Dr Keung's efforts have not gone unnoticed. Last month, he was given the Public Administration (Gold) award by the Government at the Ministry of National Development's (MND) National Day Awards Investiture Ceremony.

It marks a sweet moment in the journey of the naturalised Singaporean who arrived here in 1981 from Hong Kong, drawn to the city's novel approach to public housing.

Dr Keung, who has a Master of Science in town planning and a doctorate from the University of Wales in Britain, became a citizen in 1986 and married a Singaporean, with whom he has three children.

He recalls the first major project he worked on – the 1991 Urban Redevelopment Authority (URA) Concept Plan – together with renowned local architect and urban planner Liu Thai Ker, then URA CEO.

'I really admire him, he is one of our best, and the 1991 plan marked a watershed in our town planning. 'It was the first comprehensive review of Singapore's entire strategic plan where we outlined how we would reclaim more land, build more networks and develop new towns that transformed our city very dramatically,' says Dr Keung.

His experience rising through the ranks of various MND posts, going on to URA and the Housing Board (HDB), has contributed to the leader he has become for BCA.

He identifies three challenges for the agency in the coming years. First is the herculean task of achieving its ambitious target to green 80 per cent of buildings, which BCA will address using a combination of financial incentives and legislation such as requiring energy data to be submitted and energy audits conducted regularly by building owners.

'The challenge to upgrade buildings is large, because owners have an inertia and are afraid of the costs and disruptions involved... So we are always thinking of ways to persuade them,' he says.

Second, BCA wants to help the construction industry improve on its productivity, in line with the national move to reduce the reliance on foreign workers.

It has worked with the Ministry of Manpower on a framework that cuts the number of foreign workers companies are allowed, and increases fees for such workers.

'But these things take time. The cuts and levies are phased in every six months so the industry has some time to adjust... we do see some positive development.'

For example, companies are now using machines to wash the wheels of lorries at construction sites, where previously it involved four foreign workers.

'Hopefully by engaging the industry, sharing experiences and co-funding their initiatives, we will see progress.'

Third, BCA wants to introduce new technologies to the industry, such as 3-D Building Information Modelling (BIM) which will help reduce wastage and save time in the planning and construction process.

But for all its efforts, BCA is not without its critics. Some industry observers say that Green Mark may be successful only because its standards are low.

To that, Dr Keung answers swiftly: The standards are raised every year. He explains that for change to happen in an industry, it must be introduced in steps that allow the industry to adjust.

'The construction industry is a very conservative one, anything new and people can be sceptical,' he notes.

That is why the scheme was slow to take off, but once incentives and legislation were in place – and the capability developed so there were people qualified to do the jobs – things turned around.

The Green Mark standards are in their fourth revision and each award – from the basic certification to the highest 'platinum' accolade – is getting harder and harder to achieve, he points out.

One other area that BCA has succeeded in, beyond its regulatory role, is to build up Singapore's 'exportability', he says. It is BCA's deliberate attempt to build a niche in developing green buildings for the tropics, so that such expertise can be exported.

'Singapore is pretty small, so this is a good way for our local firms to go overseas and export its know-how,' he adds.

This is why the international profiling of BCA has been important, he says. 'I see us as exercising this regional leadership in spreading the green building message, to train people and develop policies as an example for other countries to model after.'

It has not always been smooth sailing, however. BCA has had its fair share of crises, including that in 2007, when Indonesia abruptly banned the export of sand to Singapore. Prices of raw materials like sand and concrete rocketed overnight, bringing the building industry to a standstill.

BCA scrambled to find other sources of sand to calm the industry, and has since established a procurement strategy that means Singapore is no longer heavily reliant on only one source of raw material.

'This whole episode taught me one lesson. In a crisis, you must try to build an alliance. With this, you can build trust and matters can be resolved.'

To a large extent, this philosophy of building trust and consultative approach has marked his leadership style.

Mr Keung says he has no plans for retirement yet. 'As far as BCA is concerned, there's still a lot of work to be done.'

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