

Q&A with Maria Atkinson



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Maria Atkinson, cofounder and founding CEO of the Green Building Council of Australia, for the past two years has been driving the sustainability push at Sydney, Australia-based international real estate group Lend Lease as its global head of sustainability. While Atkinson sees many interesting opportunities ahead for the industry, she argues that it is time to move beyond pockets of excellence on the green front by making more fundamental changes across the board to the way buildings are designed and operated.

What is different this year on the green building and real estate front as far as your job compared with last year?

What a difference a year makes! Twelve months ago, most of my time was spent advocating the need for change and meeting business managers to pitch and explain the case for sustainability. As an Australia-listed company, we also had to contend with a national government that refused to ratify the Kyoto Protocol.

Thankfully, since then the IPCC [Intergovernmental Panel on Climate Change, which shared the 2007 Nobel Peace Prize with Al Gore] has convincingly shown that buildings provide more cost-effective greenhouse gas mitigation opportunities than any other sector. Then, we had the launch of the Clinton Climate Initiative's Energy Efficiency Building Retrofit Program. The call for including energy efficiency in buildings in any emissions trading scheme is finally getting some traction. Closer to home, the first act of the newly elected [Kevin] Rudd government in Australia was the ratification of Kyoto.

So, at the start of 2008, we no longer need to argue the case for green.

Which are the leading nations in green buildings and broader sustainability initiatives?

With perhaps the exception of the Scandinavian countries, which have long been recognized as early adopters in all aspects of sustainability, the leading nations in green buildings and broader sustainability initiatives would all seem to have either or both of the following: regulations and an effective green building council.

The newest activity is in Dubai. Sheikh Mohammed [bin Rashid Al Maktoum] decreed that all new buildings in Dubai must be designed in accordance with green building principles. Plus, a green building council was established.

At another level, perhaps to the surprise of some, India is also moving in the right direction. It has a green building council and examples of green buildings, most notably Karan Grover's CII [Confederation of Indian Industry] Sohrabji Godrej Green Business Centre at Hyderabad—the first LEED [Leadership in Energy and Environmental Design] Platinum building, awarded way back in 2002 when the rest of us were still wrestling with green. Not content to rest on his laurels, Grover did it again in December last year: his ABN Amro bank branch at Ahmedabad was awarded LEED Platinum.

But every nation, even early adopters, faces challenges. India, for example, is far behind on implementing good practice codes and standards for its buildings.

Commercial and public buildings are green leaders. What are lagging building products? And why?

There are few green malls, few green hospitals. But most of all, there are few green hotels. The very nature of the real estate industry explains why hotels are the lagging building product—that is, the split-incentive nature of the industry, where it is more common than not that the entity responsible for developing the building is not the owner of the building, let alone the manager, and certainly not the occupant.

These split incentives are most obvious in hospitality accommodation. But it does not excuse them, and it is time for them to step up to the plate—or for their guests to speak up by spending the night in a green hotel. Even with split incentives, if hotel patrons across the globe demanded green by voting with their feet, the sector would change.

What are the real impediments to green real estate?

Clearly, the split-incentives nature of the industry is an impediment to green. I also see a risk-averse sector that applies the same technology as the last building and the one before that because it is not supported to innovate. There are few research and development incentives or alternative financing for choosing alternative systems and technologies.

Another impediment is that politicians and policy makers invariably refer to real estate as homes—nothing more, nothing less. In Australia, for example, that means that while there are rebates for homeowners for installing rainwater tanks and solar hot water systems, commercial properties are not eligible for any such incentives.

In the U.K., all new homes must be carbon zero by 2016, and incentives are being directed at domestic solutions, but again *not* at commercial buildings. In particular, there is nothing to overcome the costs of refurbishing existing buildings that have the potential to be green.

Those that cannot get there should be granted immediate approval for demolition. We have the tools that can tell us whether an existing building can be green or not. I am all for fast action on those 30-year-old, energy-guzzling, sick examples of a design and construction period we will never repeat again.

Another impediment has to be the way the industry has traditionally operated the world over. Industry support for green building has grown exponentially in the past ten years. We have the technology.

But we will never achieve the growth in green buildings that is required over the next ten years as long as we seem incapa-

ble of consistently replicating best practices within individual companies, as well as between companies and across countries. The only opportunity for the change we need in the next ten years is if we work together by connecting with others across the sector, within our own organizations, and between countries.

We have not fundamentally changed the way we design and operate the built form. We keep coming up with innovation that tweaks but does not reengineer the entire process. While we have managed to fudge it so far, it is time for real change, for as long as we continue to resist this, I fear we will never achieve what is required of us.

We can make buildings 100 percent more efficient—30 percent from passive design, and 60 percent from alternative heating and cooling solutions and smart lighting and metering. We can get beyond 60 percent efficiency if we can provide the power for the building through a distributed solution using fuel cells, the sun or wind, and, where possible, geothermal. With this proven formula and our ten-year window to make a difference to greenhouse gas emissions, we can create jobs, new skills, new solutions, and create healthier internal environments for everyone.

Do you see the carbon trading market having an impact on buildings?

Carbon trading would definitely have an impact on buildings, and a carbon trading scheme that includes the built environment would drive deep emissions cuts that would benefit everyone. It is just a question of when the politicians and policy makers are going to get that message.

In fact, by being able to trade and effectively make a financial return on their investments in emissions-reduction initiatives, developers and asset owners would be able to deliver deep greenhouse gas emission cuts of 60 percent and more using today's technology. Going further, we found that high-value carbon credits of \$34 [Australian; US\$31] per ton of carbon dioxide equivalent could realistically achieve a

carbon-zero position in buildings at nil cost. This can work through a mechanism providing permits for design savings, and offsets for operational emissions savings, with reporting and verification through green building council rating tools.

Why are our politicians and policy makers not talking about a trading scheme that recognizes energy efficiency in buildings? It seems everyone is focused on the energy industry. It is time to demand a global emissions trading scheme that recognizes energy-efficient buildings.

What about our larger infrastructure—energy, water, waste? How can it be greened?

This is the future and, for developers, a really exciting opportunity. It is part of the inevitable shift from our current obsession with one piece of the real cost pie—the capital cost—to a whole pie of life or operational cost awareness. Ultimately, developers who can find the operational value will succeed, and those who cannot will not exist.

I see a bright future where developers work in partnership with communities to provide distributed energy, water, and waste solutions to ultimately achieve zero-carbon, zero-waste communities. Solutions will include on-site water harvesting, treatment, and reuse, and alternative energy generation from fuel sources, which will start with gas and move to biofuels and then to a new method of efficient hydrogen extraction that I cannot predict. The energy will come from renewable sources like the sun or wind. I also see food waste supporting the energy generation solutions, as well as a significant downsizing of current wastes. What I cannot see is whether we will do all this quickly enough to reverse the stress on the planet.

Will developing nations repeat the environmental mistakes of developed nations—construct out-of-date buildings and infrastructure today, then have to retrofit everything in ten years?

The only real risk is when we in the developed countries think we know better and try to impose our methods, technologies,

and rating tools on them. As Grover has said, they do not use artificial heating and cooling in India—never have and hopefully never will. So a rating tool from a developed country that references artificial heating and cooling would be nonsense in the Indian market.

That said, developing countries would benefit from a carbon trading market. With so many global real estate and construction companies operating in India and China, any initiatives that would drive investment in emissions-reduction initiatives would inevitably also benefit construction activity in those markets.

I also believe the governance that was agreed to in Bali [during the United Nations Climate Change Conference in December]—all countries will report their carbon emissions—will facilitate best-practice building codes and pollution standards in emerging economies.

How do you design a building today, so that it is not obsolete—in green terms—in ten or 20 years?

To ensure we are building for the future rather than for obsolescence, we must be brave enough to throw everything we have done thus far up in the air and almost start again.

It is hard to predict exactly what we will come up with, but I suspect that we need to design for zero waste and for disassembly—designs that maximize passive heating, cooling, and comfort features, as well as attributes of the local geography. Building services will be reengineered to accommodate distributed or on-site energy, water, and waste solutions.

More fundamentally, we need to reengineer the supply chain to address the choice of materials from sustainable timber to non-toxic plastics and products. It is all a massive challenge, but it will generate profits from the inevitable efficiencies. **UL**

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