

Keeping Up Architect Jason Pomeroy urges the archipelago to take on a more sustainable approach to urban planning

Green Benefits of Eco-Architecture For Indonesia

Erwida Maulia

Jakarta has been consistently ranked as among the world's least livable cities.

A global survey earlier this year crowned the Indonesian capital for having the worst traffic in the world, while a separate report on safety placed the city at the bottom of its list.

But oversights in urban development in Indonesia are not exclusive to Jakarta; they are becoming increasingly common in other major cities, such as Bandung, (West Java), Yogyakarta, Medan (North Sumatra) and Denpasar (Bali), where traffic, overcrowding and pollution are now a familiar burden to everyday life.

While developed cities in other parts of the world vie to outdo each other in turning "green," the archipelago is struggling to even meet its most basic needs.

How can Indonesia begin to remedy these problems? How can it incorporate today's trend of green living into its excruciatingly sluggish, if not disorderly, urban development?

The Jakarta Globe spoke to Jason Pomeroy, founder of Singapore-based eco-architecture firm Pomeroy Studio and academic, on a more comprehensive solution to Indonesia's urban struggles.

Q: What are the main challenges for Indonesia in relation to urban planning?

A: Indonesia is a rapidly developing nation. Even taking into account the current economic slowdown, Indonesia's gross domestic product grew by 5.02 percent in 2014, a rate many countries would love to have. This growth is a result of rapid industrialization and development.

Thanks to the promise of jobs and opportunities, over half [53 percent] of the archipelago's population live in cities, and as more Indonesians flock in from the countryside, this trend is set to continue.

Jakarta's population alone stands at over 10 million, and is forecast to expand to over 13 million people by 2030, making it one of the largest cities by population on earth.

This mass movement from the countryside into the city has resulted in some significant issues. Poor or haphazard urban planning has resulted in environmental problems and flooding — an annual occurrence. This flooding is also exacerbated by the severe lack of green, open spaces and vegetation that would otherwise help to 'soak up' much of the floodwater.

Another consequence of this lack of greenery is the declining 'livability' of

urban areas, increased temperatures — vegetation can significantly reduce ambient temperatures — and a more 'stressed out' population who lack the calming and health benefits of vegetation and green open spaces.

What are the main reasons behind the lack of public services in many Indonesian cities?

The speed at which urbanization has occurred, not just in Indonesia but throughout Asia and the developing world, is unprecedented. Better [infrastructure] connectivity has allowed more people to travel further and quicker.

This, understandably, has overwhelmed much of the urban infrastructure that was designed and built to accommodate far fewer citizens. This includes public transport, but also water provision, sewage treatment, health-care services and so on.

The consequences of poor public transport can be seen daily on the streets of Jakarta, with 16 millions vehicles on the roads in 2013.

Furthermore, while first- and second-tier cities have absorbed much of the rural population, we are also witnessing the 'urbanization of villages' — literally villages gradually growing into small towns and cities through organic growth.

One example is Pondok Cina, located on the outskirts of Jakarta. This has grown from a rural village to having 5,000 people per square kilometer.

Small villages may not have the resources to plan for this growth, and by the time regional governors realize infrastructure is needed, it is often too late.

How can Indonesia address many of these urban issues?

From an eco-architectural point of view there are many things that can be done to improve the lives of urbanites throughout the country. Many of these solutions are surprisingly simple — and cost-effective.

On a basic level, eco, or 'green,' architecture harnesses the sun, wind and rain to reduce energy consumption, costs and pollution, while paying respect to the natural environment.

Our [Pomeroy Studio's] approach to eco-architecture goes beyond this, and incorporates the essence of culture and heritage to create built environments that positively impact people's lives.

An earlier project of mine — the Idea House in Malaysia — drew on techniques used in the South East Asian Kampong Houses — which were designed before the



Jason Pomeroy is on the forefront of a growing trend in eco-friendly urban planning and architecture. Photo courtesy of Ejun Low

advent of electricity, and air-conditioning — and reinterpreted them for the 21st century. The result was Asia's first carbon-neutral prototype home — a modular structure that was constructed in 12 weeks and could generate enough energy to offset the needs of the family.

By drawing on culture and tradition, you can create homes, buildings and cities and landscapes that are more livable, more culturally in-tune with the population and

more environmentally friendly.

Furthermore, if city planners incorporate more greenery into the urban landscape, they can significantly increase the livability of their cities, improve the health of the urban population and reduce the risk of flooding. This greenery can come in the form of parks, gardens and shrubbery.

But increasingly, as cities become denser and more vertical, it should also come in the form of skyparks and skygardens — literally gardens in the sky [on rooftops] that replace the social and communal spaces lost at ground level. Jakarta can look to Singapore for inspiration on this.

In my recent architecture TV series "City Redesign," I visited [eco-estates] Treelodge@Pungol and the Pinnacle in Duxton. These are both housing projects that constitute the living environment for 84 percent of Singapore's population and includes sky-rise greenery through skycourts and skygardens.

This offers many benefits to the community; not least the ability to have recreational space for the inhabitants and potentially reduced running costs given the ability of greenery to reduce temperatures and thus the reliance on artificial cooling methods.

Eco-architecture is still perceived as expensive, inaccessible, and irrelevant on a mass scale, especially in a city. What can the government or industry experts do to overcome this attitude?

The industry needs to communicate to developers, city planners and governments that it's not what a sustainable building costs, but actually what it saves.

The stigma of green design costing 30 percent more than normal buildings will continue to be challenged and de-mystified as more and more green buildings are assessed in terms of their capital costs and operational costs in comparison to non-green buildings.

Common perceptions that sustainable design is costly will continue to change, with an increased awakening that the costs initially associated with green design are marginal [1 percent to 5 percent over non-green buildings] and yet the upsides considerably outweigh the former.

Improved habitable conditions, reduced energy and water consumption and therefore utility bills and greater social mobility all contribute to an increase in savvy property purchasers basing their decisions on such tangible savings and lifestyle improvements.

The World Green Council has also published findings that highlight the heightened tenancy retention, rental and sales value increases of green projects, which further demonstrates that designing green is not only good for the environment, but good for the pocket.

But it will only be a matter of time that the word 'sustainable' will be dropped from a sentence. It is an appendage used extensively in marketing collateral, and the sooner everyone realizes that sustainable design is good, back to basics design that utilizes tried and tested principles from generations before, the better.

As sustainable building becomes more widespread, so will the principles of sustainable and passive design be applied to larger, mass-scale cities and townships.

Jakarta Education Officials in Hot Water for Shady Purchase of UPS Devices

Lenny Tristia Tambun & Farouk Arnaz

The Jakarta government will suspend two education officials named as suspects by police for their involvement in the irregular procurement of uninterruptible power supply devices to schools across the capital last year.

The National Police on Monday charged Alex Usman and Zaenal Soleman, the procurement's project managers for West Jakarta and Central Jakarta, respectively, on suspicion of corruption and bid rigging.

Jakarta Governor Basuki Tjahaja Purnama said with the two now embroiled

in a criminal case, by law the city can suspend them from active duty.

"As they have been named suspects, it is better if they concentrate on their cases. We will replace them," Basuki said, adding that he would soon look for potential candidates to replace the suspects.

Alex and Zaenal are currently the West Jakarta education agency's facility chief and the city's youth and sports agency chief, respectively.

Jakarta Deputy Governor Djarot Saiful Hidayat said on Tuesday that the suspension would have to wait for more development into the case.

"Once the [legal] process continues, we will evaluate whether they need to be

replaced immediately or not," Djarot said.

Meanwhile the governor appeared reluctant to have the city provide the two accused with legal counsel.

"I don't know if we can provide [counsel] for a corruption case," the governor said on Tuesday.

Last year, the city spent Rp 330 billion (\$25 million) on the UPS equipment for 55 schools in the capital, in a program that Governor Basuki says his administration never proposed.

The schools say they neither needed nor requested the devices, which at a price tag of Rp 6 billion each are highly inflated compared with retail listings of no more than Rp 20 million per device.

The companies listed as tender winners for the procurement were also deemed suspicious. Addresses listed were found to be empty warehouses and small shops.

The UPS machines were distributed to schools across West and Central Jakarta between last October and January this year.

Police say they have found indications of state losses amounting to at least Rp 50 billion, which was reportedly pocketed by several city officials.

National Police spokesman Sr. Comr. Rikwanto said investigators are looking to charge more suspects.

"From the flow of funds, it is likely that there will be more suspects. We will question [Alex and Zainal] next week," he said.