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# Keeping Asia's big cities afloat

By **GAVIN JONES**  
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**B**ANGKOK, Jakarta and Manila are the megacities of South-east Asia today and, as with most other megacities, they are beset by environmental concerns.

These three megacities sit in low-lying coastal areas barely above sea level, although parts of outer Jakarta and Manila are elevated. So flood woes are prominent in Manila from typhoons, and in Jakarta from its yearly wet season.

Residential developments in nature and water catchment areas have exacerbated the flooding, including a luxurious housing estate in north Jakarta in a conservatory forest area. The forest was to have prevented seawater intrusion and stabilised high tides and floods but now, without it, routine flooding plagues the area.

As for Bangkok, in years when the Chao Phraya River brings run-off from unusually high seasonal rainfall from Thailand's north to central plains, floods can be disastrous. Last year, for example, the total rainfall in the Chao Phraya basin was between 50 per cent and 100 per cent more than the yearly wet season average.

Another aggravating factor seems to have been the conversion of low-lying agricultural land for urban use. Farmers in flood-prone areas of Thailand used to plant long-stem varieties of rice because these could keep ahead of rising floodwaters but now, land paved over for urban use is unable to absorb floodwaters. This, on top of coastal erosion, provides multiple challenges for Bangkok's planners.

Meanwhile, Jakarta and Manila are in the throes of transportation woes. Both have more vehicles than road capacity for them – neither capital has a subway either. Indonesia's petrol subsidies, for example, have spawned a housing sprawl around its major toll roads, causing much rush-hour congestion.

It is hard to measure exactly how large these megacities are, chiefly because official metropolitan boundaries fail to capture the considerable population and economic spillovers from downtown to outlying urban areas.

For example, in 2000, when Jakarta and Manila's total populations were adjusted to include people in surrounding built-up areas, the resulting megacity population estimates jumped from 8.4 million to 17.8 million for Jakarta, and from 9.5 million to 16.2 million for Manila. Similar adjustments for Bangkok raised its population from 6.3 million to 8.3 million.

These populations have since increased considerably and I am now leading a study under the auspices of National University of Singapore's Global Asia Institute (NUS-GAI), to find ways of projecting the populations of such megacities and the urban regions around their metropolitan boundaries.

Might moving South-east Asia's capital cities to less environmentally challenged locations be a solution?

Such a decision cannot be taken lightly. The concentration of wealth and power in these mega-urban regions is such that it contributes as much as 30 per cent to a country's gross domestic product. So moving to greener areas will not greatly stem the flow of people into cities.

The only way, it seems, is to work consistently on many fronts to improve the liveability of these megacities, on which the well-being of so many people depends.

Professor Gavin Jones is director of the J.Y. Pillay Comparative Asia Research Centre at NUS-GAI and he will be speaking at the NUS-GAI Signature Conference on Thursday