

Walking On Water: The Significance Of Land Reclamation In Hong Kong And Singapore

Philip Heller May 26, 2021

Singapore aims to grow by 7-8% by 2030. This figure would represent moderate growth if it referred to the country's GDP; however, it is referring to the physical country itself. [...]

Land reclamation is most commonly achieved by filling bodies of water with materials such as sand, rock, soil, and cement. This process allows cities to accommodate future population growth by creating additional areas for development and urbanization. Approximately 55% of the global population live in urban areas today, a figure that was only 30% as recently as 1950 but is expected to grow to 68% by 2050. This represents billions of people that will join our metropolises in the coming decades, and cities like Hong Kong and Singapore are starting to prepare for them. [...]

10 Singapore

The tiny country of Singapore is the world's largest sand importer, bringing in an estimated 517 million tons of sand over the last 20 years. Give it some time, and Singapore may not always be referred to as tiny, as the city-state has used this sand to expand its footprint by 22% since 1965. Similar to Hong Kong, Singapore built its airport on reclaimed land, while much of the central business district as well as the famous Marina Bay Sands sit on new land. While at first Singapore utilized sand within the country for these projects, its current status as the world's largest sand importer has not been without controversy.

In 1997, Malaysia announced a ban on sand exports in response to high trade with Singapore, with the Malaysian Prime Minister stating that miners were "digging Malaysia and giving her to other people." Next came Indonesia, which by 2007 represented 90% of Singapore's sand imports, leading the country to ban exporting sand specifically to Singapore. Vietnam followed in 2009, leaving Cambodia to now serve as Singapore's primary sand trade partner (although sand dredging is banned in most Cambodian rivers, it is allowed in the ocean). Realizing they may one day run out of importable sand, Singapore announced in 2016 that it would start using polders for some land reclamation projects. This method, which is popular in the Netherlands, involves building a wall to keep seawater out while using drains and pumps to control water levels.



A dredger pulls sand out of Cambodia's Tatai River

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Land reclamation is often a controversial subject due to its environmental impact. In Cambodia's Tatai River, which is exempt from the country's ban on river dredging, locals reported an estimated 85% reduction in the catch of fish, crab, and lobsters since dredging commenced. Environmental concerns are not limited to sand removal, as dumping tons of sand into waters also has a strong impact on local ecosystems. [...]

As cities struggle to accommodate growing populations, many will turn to land reclamation as a solution. It is up to leaders, politicians, and community members to debate whether the benefits and costs outweigh the negative environmental impact. What is for certain is that we are witnessing the largest mass migration of humans in history, and our cities need to develop and adapt to meet the pressing demand for urban life.

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