

Banyan

Such quantities of sand

Asia's mania for "reclaiming" land from the sea spawns mounting problems

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EVEN on a quiet Sunday morning, a steady stream of lorries trundles along the broad, pristine and otherwise deserted streets of Punggol Timur, an island of reclaimed land in the north-east of Singapore. They empty their loads into neat rows of white, yellow and grey mounds where the country stockpiles a vital raw material: sand. Building industries around

the world depend on sand. But Singapore's need is especially acute, as it builds not just upward but outward, adding territory by filling in the sea—with sand. And in Asia it is far from alone. The whole region has a passion for land reclamation that has long delighted property developers. But it has worried environmentalists. And it brings cross-border political and legal complications.

For Singapore, territorial expansion has been an essential part of economic growth. Since independence in 1965 the country has expanded by 22%, from 58,000 hectares (224.5 square miles) to 71,000 hectares. The government expects to need another 5,600 hectares by 2030. The sand stockpiles are to safeguard supplies. Singapore long ago ran out of its own and became, according to a report published last year by the United Nations Environment Programme, by far the largest importer of sand worldwide and, per person, the world's biggest user. But, one by one, regional suppliers have imposed export bans: Malaysia in 1997, Indonesia ten years later, Cambodia in 2009 and then Vietnam. Myanmar also faces pressure to call a halt. Exporting countries are alarmed at the environmental consequences of massive dredging. And nationalists resent the sale of even a grain of territory.

The area of land Singapore has taken from the sea is dwarfed by reclamation elsewhere—in Japan and China, for example. Since the 19th century, Japan has reclaimed 25,000 hectares in Tokyo Bay alone. For a planned new city near Shanghai, Nanhui, more than 13,000



hectares have been reclaimed. In Hong Kong, as Victoria harbour has been filled, the island has moved closer to mainland China geographically if not politically.

Singapore is unusual both in being so small that such a large proportion of its territory is man-made, and in being so close to its maritime neighbours, Malaysia and Indonesia. Not only has it faced criticism from environmental groups because of the impact its sand purchases have had in the exporting countries, in 2003 it also faced a legal challenge under the UN Convention on the Law of the Sea (UNCLOS) from Malaysia over land-reclamation projects at either end of the Johor Strait that separates the two countries. Malaysia alleged the work was impinging on its sovereignty, harming the environment and threatening the livelihoods of some of its fishermen.

After arbitration, the dispute was settled amicably enough. But now roles are reversed: Singapore is concerned about two big Malaysian reclamation projects in the Johor Strait. One, Forest City, would reclaim land to create four linked islands in the strait. It sounds like a fantasy—virtually an entire new city of gleaming skyscrapers and verdant lawns. But since its shareholders are a big Chinese concern and the Sultan of Johor, the head of the royal family in the Malaysian state of Johor, it is taken seriously. After Singaporean protests, reclamation work stopped last year. But in January it was reported that the project had been approved by the Malaysian government, albeit scaled down considerably. Singapore's government says it is still waiting to hear this officially.

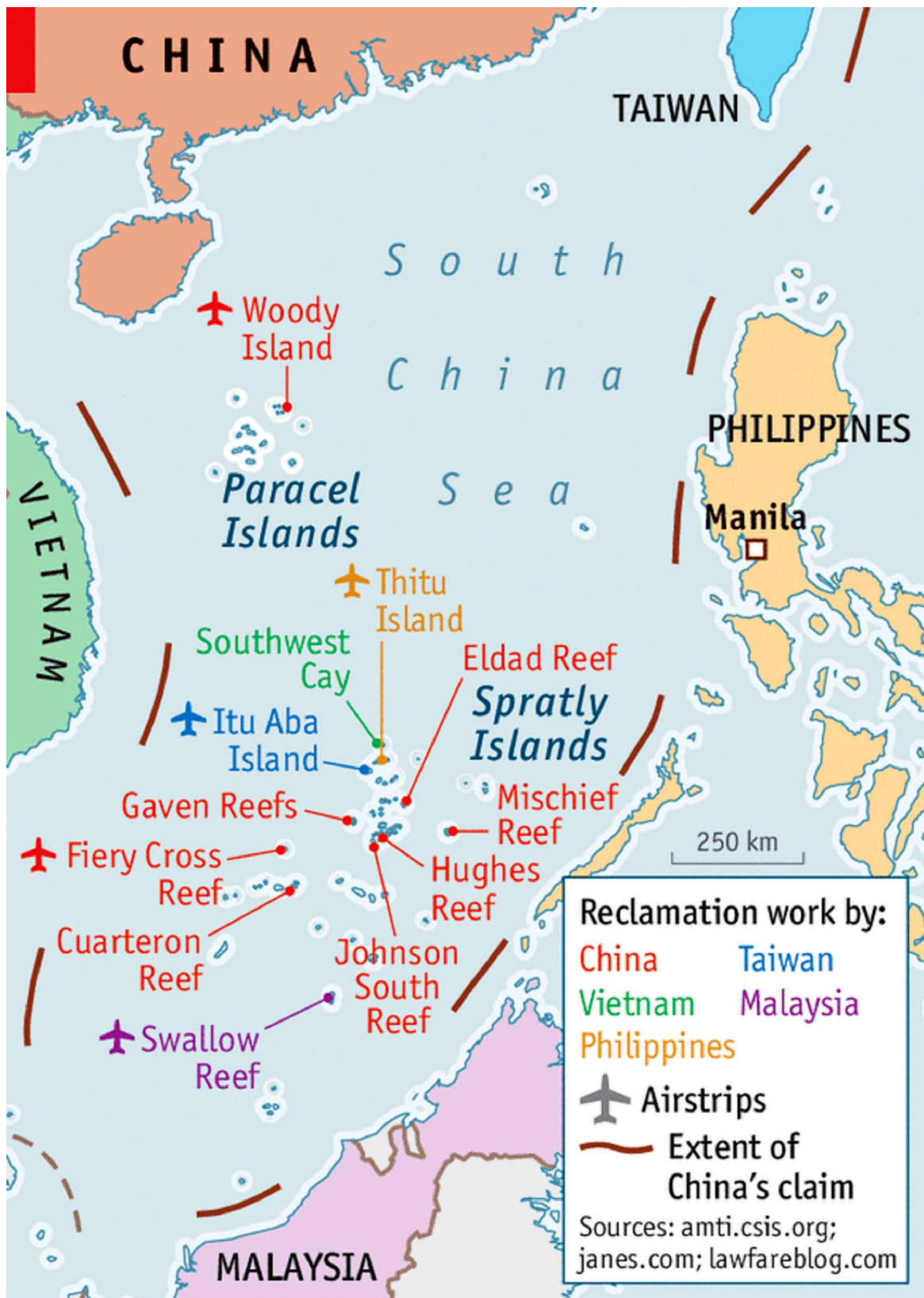
International law is likely to be invoked again over island-expansion elsewhere in Asia. Japan argues that its remote southern outcrop of Okinotorishima is an island, which, under UNCLOS, would entitle it to “territorial waters” within a 12-nautical-mile (22km) radius, and a 200-mile “Exclusive Economic Zone” (EEZ). China argues it is not an island at all but a rock, incapable of sustaining human habitation, and so, under UNCLOS, commands only territorial waters, not an EEZ. The argument is complicated by Japan's efforts to make the island grow by using star sand, the shells of a tiny single-celled organism found near coral reefs in Japan's south. Scientists have learned how to grow this artificially, and the government hopes thereby to strengthen Okinotorishima's claim to island status. Even if they managed this scientific feat, it might not pass legal muster with UNCLOS. Rocks and islands must be “naturally formed”. So can rocks be transformed into islands through man-made sand?

The law is explicit that ground that is submerged at high tide—known as “low-tide elevations”—commands neither territorial waters nor EEZs, and cannot be built up into “rocks”. This is an important issue in the complex overlapping territorial disputes in the South China Sea, where China is reclaiming land in contested areas. In a submission to an

UNCLOS tribunal, the Philippines has asked that three features China is developing be categorised as “low-tide elevations” and three as “rocks”.

You are a rock, I am an island

China may hope that by filling in the sea around rocks of all sorts it can upgrade their legal status. After all, once the work is done, it would be hard to prove where the original feature began and ended. More likely, however, China simply sees merit in the old saw that possession is nine-tenths of the law. Building on these features offers practical benefits for Chinese coastguards, fishermen and the navy and air force—and it bolsters China’s territorial claim with an enhanced physical presence.



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China is vague about what its claim is. Is it based on land features and the waters that accrue to them under UNCLOS? Or does it, following historic maps that show a “nine-dash line” round the edge of the sea (see map), also assert sovereignty over the water itself? In this sea of vagueness, China’s reclamation work offers practical and symbolic benefits. It also points to a rarely cited reason why the South China Sea matters. Oil experts now often cast doubt on the sea’s purported wealth of hydrocarbons. It does, however, contain substantial quantities of sand.

From the print edition □□ □□