

Published on *Marine Ecosystems and Management (MEAM)* (<https://meam.openchannels.org>)

---

## Tundi's Take: The horror and hubris of land reclamation

By Tundi Agardy, Contributing Editor, MEAM. Email: [tundiagardy@earthlink.net](mailto:tundiagardy@earthlink.net)

As MEAM hears from practitioners around the world about how their work relates to EBM, I feel compelled to call attention to a frightening phenomenon I am witnessing – expanding, unchecked land reclamation, even in places that purport to be practicing EBM. Not only is the practice alarming, the term is annoying: people 'reclaiming' land from nature, as if it were ours to begin with.

Infilling, a decidedly more appropriate name for the practice, is trying to meet humanity's need for more space in the world's coveted and valuable coastal zones. But while we track and quantify pollution sources, dead zones, and overexploited fisheries, the amount of habitat conversion being undertaken for urban expansion, resort development, port construction, and industrial infrastructure siting does not seem to be on anyone's radar screen. All signs are that we should be worried. Irreversible losses of natural habitat – and the valuable ecosystem services that they are delivering – are occurring in every inhabited region of the world with increased pace. We can clean up some marine pollution to restore degraded ecosystems and catalyze fisheries stock rebounds by alleviating fishing pressure. But once pilings, dirt, sand, and cement subsume nearshore habitats, they can never be brought back again.

This trend is most troublesome because the infilling is happening in some of the most ecologically vital and productive parts of the marine system – tidal flats, wetlands, mangroves, corals, and rocky reefs. These places provide us with our greatest chances of adapting to and mitigating climate change and assuring future food security for large swaths of the human population. Without healthy reefs, seagrasses, mangroves, wetlands, and estuaries, coastal ecological functioning will be so impaired that coastal residents, and coastal countries themselves, are at risk.

### Tour of destruction

Take what is happening in the Arabian Gulf region. Throughout Saudi Arabia, Bahrain, Qatar, and the United Arab Emirates, the horizon in every direction is cluttered with construction cranes emblematic of the continuing development boom. In these arid countries, shorelines are of tremendous value, so creating new coastal land brings more and more development opportunity and more and more revenue. If the IPCC is correct that the world will experience more catastrophic storms (note the unusual cyclone that rocked Yemen last month), Gulf countries may regret destroying the mangrove, coral reef, and seagrass beds that might have buffered their valuable new shorelines from storms and wind-driven surges.

What is happening in the Maldives is even more worrying. A new amendment to the 2008 constitution allows foreign ownership of land in the atoll nation for the first time. But ownership can only accrue if developers reclaim 70% of their development parcel – that is, they are required to transform natural habitat then infill nearly two and a half times the transformed area to create new lands. And I expect the Tourism Ministry, with its new mandate to oversee environmental impact statements, will do so with a 'growth at any cost' mindset.

The Maldives depend heavily on land reclamation. To address overcrowding in the capital Malé (which was doubled in size by infilling on the coral reefs that ring the atoll on which the city was built, extending as far as possible until the drop-off was reached), the government has created, from scratch, Hulhumale Island. When completed, 227 hectares of land will have been created out of the turquoise blue sea – a lagoon of patch reefs will have given way to houses for 100,000 people. Modern technology and coastal engineering prowess make it easy to take space from nature and give it to humans for their use alone, and the Hulhumale experience has whetted the appetite of the Maldivian government for more and more land. The new development regulations incentivize infilling at the grandest possible scale, and the current government foresees the equivalent of 32 Hulhumales emerging from the very habitats that attract tourists and investors to the Maldives in the first place, and in fact make life on the remote Indian Ocean archipelago possible. Neighboring Indian Ocean countries including the Seychelles and Mauritius are accelerating such practices as well, cumulatively contributing to regional scale transformations of the seascape and landscape.

Across the world in the Spratly Islands, China is attempting to end the stalemate on this disputed territory of rocks and reefs lying between it, Vietnam, Malaysia, the Philippines, Brunei, and Taiwan. Seemingly killing the idea of a transboundary peace park – an idea that has been floating around since the 1980s – China is trying to cement its claim (pun intended) to the area by dumping fill on some of the richest and most pristine reefs of Southeast Asia. Doing so, they have destroyed some of the world's natural heritage and raising tensions in the region. But it is a calculated risk that could bring them exclusive control over potentially vast oil and gas reserves, productive fishing grounds, and strategic military locations.

And 400 kilometers north, there is Okinawa, where decades-long arguments about relocating the US military base and expanding the airport are coming to a head with reclamation that would obliterate some of that region's richest reefs. Similar scenarios are playing out in Caribbean countries.

On the surface, these are not bad actors in the marine management arena. MPAs and other management measures exist in many of these countries and in the multitude of other countries that practice large-scale land reclamation – and in fact some of these countries are lauded for their marine protections. But it reminds me of the 1980s when the world's attention was focused on deforestation. Fingers of blame were pointed at countries that had not yet established protected area systems to safeguard forest diversity. Costa Rica, however, stood out for its pioneering parks – the highest percentage of land area protected anywhere in the world, it claimed. What Costa Rica did not broadcast to the world was that it had one of the world's highest rates of deforestation outside of these protected areas. That irony was not on anyone's radar screen either.

---

Source URL: <https://meam.openchannels.org/news/meam/tundi%E2%80%99s-take-horror-and-hubris-land-reclamation>