

## **Building a Bridge Too Far?**

### **A restricted place indeed ...**

Growing up in one of the smallest members of the United Nations (Malta, in fact, ranks 10<sup>th</sup> smallest nation in the world), you feel eclipsed and domineered by the sheer extent of the neighbouring countries you visit. The physical constraints of this archipelago we call home, become all too evident the minute you disembark a plane or cruise ship. For some, this mindset of 'extreme smallness' evolves into a sense of claustrophobia, such that they opt to seek fresh pastures and live abroad.

### **The drive for land reclamation ...**

So, it comes as no surprise that the ultimate aspiration of successive Maltese governments has been to beef up our terrestrial area. However, the main motivation behind this very ambitious goal is not, as I had surmised, to enable us to spot Malta on a global map, but, rather, to address various pressing environmental challenges our islands are facing. Being one of the most densely-populated nations on the planet comes with strings attached, namely the increasing demands to house the infrastructural needs of a 'city' of more than half a million residents that our islands have become.

Besides the residents, one also has to factor in the over 2.5 million (inclusive of cruise ship passengers) annual tourists our islands welcome. However, it's not just the intimidating caveats our islands are facing that are fuelling our thirst for more land. Our inefficient use of resources and our pathological 'need' for new development are to blame too; a

considerable number (hovering around the 40,000 mark) of our residential buildings are permanently vacant (i.e. are not holiday homes and not in a dilapidated state) while some are calling for even higher annual tourist arrival numbers.

Let's not forget the elephant in the room – waste! 80% of all the waste generated on the islands consists of so-called 'inert waste', construction and demolition (C&D) waste from the construction and road works industries. This is equivalent to a staggering 2 million tons, of which only 15% is recycled locally, mainly in the form of crushed stone aggregates used in road construction. The rest is either used to reclaim disused quarries, as in the Mqabba-Qrendi area or, more ominously, dumped directly into the sea. Yes, you heard right – into the sea! This process is a legitimate one - Malta even has a designated 'spoil ground' some kilometres away from the mouth of the Grand Harbour, which has experienced the dumping of millions of tons of inert waste over the past 20 years. Within this context, the full picture finally pans out – there is the demand for more land, we have ample marine space where to house this expansion and we have millions of tons of waste as 'fodder.'

### **The feasibility of land reclamation ...**

But wait, is marine space so 'ample' after all? And what about the environmental impacts of such land reclamation? Truth be told, Malta's territorial waters (those which extend up to 12 nautical miles from our shores) dwarf our terrestrial extent, such that we have 14 times more water than we have land, and most of this water is actually deeper than 50 metres and unsuitable for land reclamation purposes. To compound matters further, most of the 'shallow' water is either enclosed within Marine Protected Areas (MPAs) since these house important species such as the

Neptune Seagrass (*Posidonia oceanica*; 'alka' in Maltese), or are important for a variety of human activities, including ship bunkering and anchoring. It is no surprise, therefore, that Malta's waters are as crowded as our land is, especially off the eastern coastline of Malta, where most of the 'shallow' water lies.

### **Advocates and detractors of land reclamation ...**

Advocates of land reclamation at sea emphasise that a number of countries, including the Netherlands, the UAE and Singapore, have successfully invested in large-scale reclamation of their seas, and that there have been previous instances of land reclamation even on our shores. The Malta Freeport in Birżebbuġa, for instance, is built almost entirely on land reclaimed from the sea, with the 'spoils' (the sand excavated from the bottom of the sea) being deployed to expand Pretty Bay considerably. Other examples of local land reclamation include the Marsaxlokk hard-standing facility for fishing vessels, and swathes of Marsa and Msida to avoid flooding. Opponents of marine area reclamation insist that the aforementioned countries don't use their seas for bathing and touristic purposes as extensively as we do, and that Malta has never conducted any land reclamation in open waters but only in sheltered creeks and harbours. The latter point is very relevant due to a phenomenon biologists call 'connectivity' - the dispersal of material over large areas through water currents. It is plausible, in fact, to envisage a plume of milky-white, turbid water spreading down all along the east coast of Malta as a result of land reclamation at Baħar iċ-Ċagħaq, one of the potential sites shortlisted for land reclamation in Malta.



Image: Palm Islands in Dubai, often used as an example of good land reclamation practice by supporters of the process. But is land reclamation that feasible, and is the Persian Gulf context the same as the Maltese one?

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Source: <https://ww3.rics.org/uk/en/modus/natural-environment/land/out-of-the-deep--7-massive-land-reclamation-projects--.html> (accessed: 14<sup>th</sup> April 2023)

### **Alternatives to land reclamation ...**

They say prevention is better than cure. A more efficient use of finite, non-renewable resources on these islands is definitely the wisest possible strategy. Land resources should be used judiciously to reduce the demand for land reclamation. A greater effort to recycle building stone should be made, not just because we need to comply with relevant EU directives, but, more importantly, since building stone is a finite resource, and giving it a second life will also help us achieve circular economy targets. My gut feeling, after having pondered both sides of the argument, is that the quality and health of our seas are too important to play Russian roulette with.

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