

## Tunnelling to feed land reclamation?

The current hype revolving around the development of a permanent Malta-Gozo link has touched briefly upon environmental concerns, with the tunnel option being touted by many as having a significantly lower environmental impact than the bridge since the former option does not impinge directly on the seabed. While this argument is correct to a large extent other environmental considerations must be taken into account when assessing the environmental footprint of a tunnel link.

For instance, excavating the tunnel will probably generate over 500,000 cubic metres of construction and demolition (C and D) waste, assuming an 11km-long tunnel 10m wide and five metres high.

Let us put this volume into context: according to the national waste management plan for 2014-2020, in 2011, which strangely represents the latest year for which such statistics are available, just over 700,000 tons of such inert waste was generated, of which 61 per cent was backfilled into quarries, 21 per cent was disposed of at sea at Malta's only operational marine spoil ground, off the Grand Harbour, while only 18 per cent was recycled or recovered.

These figures jar with the target Malta set itself of recovering 70 per cent of its C and D waste by 2020, and reveal the magnitude of the problem of how to deal with the volume of waste that will be generated through the tunnel excavation.

There are limited options available as to how to manage the debris resulting from the tunnel project. The debris would either have to be backfilled into existing quarries, which would entail thousands of trips to and from the site by heavy vehicles, or it would have to be disposed of at sea.

If the latter avenue is embarked upon, one presumes that the disposal would not take place close to the tunnel excavation site itself in order to substantiate the claim that the tunnel option will impinge less on the seabed than the bridge option. Therefore, it would involve the ferrying the waste away by barge to the marine spoil ground some 25km away from the excavation site. Considering the length of the trip and Malta's track record when it comes to disposing of such waste, spills along the route are very much on the cards, so the real environmental impact of such a disposal route is likely to raise eyebrows.

In 2008, the Malta Environment and Planning Authority commissioned an underwater survey of the marine spoil ground off Grand Harbour, whose depths range between 93 and 115 metres. The survey revealed some unsavoury findings: contrary to what one might imagine, there wasn't a single mound of debris on the seabed, but a total of 171 mounds spread over a staggering marine footprint of 15 to 20 square kilometres. It also revealed that one particular mound is 20 metres high, which is equivalent to a six-storey building.

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Sobering as these results may sound, they date back to 2008, before other major coastal construction projects were undertaken, such as the Midi one at Tigné and Manoel Island, which entailed the dumping of millions of tons of waste at the same spoil ground. According to a source at Transport Malta the sea depth at sections of the spoil ground has gone down to 75 metres, revealing that the mounds of waste have risen even higher since the 2008 survey.

The unwieldy volumes of inert waste set to be generated by the tunnel excavation must also be seen within the context of other large-scale excavation projects that are on the cards. For instance, according to the environment impact statement (EIS) for the proposed high-rise Mriehel Towers, this development alone is set to add a further 166,000 cubic metres of inert waste.

A more ominous destination for these copious volumes of inert waste from tunnel excavation might be the sites at sea earmarked for land reclamation, which are located a considerable distance away from the excavation sites. One hopes that the tunnel excavation does not indirectly pave the way for land reclamation schemes by generating the fodder that these schemes sorely need at the moment.

## **Bird callers rule the airwaves, OK?**

One of the first amendments to the hunting laws ushered in upon the change in government was that the illegal use of electronic bird callers to attract wild birds is no longer subject to court proceedings but is only punishable by an administrative fee. This slap on the wrist seems to have emboldened hunters, as the use of these devices in the countryside, even at short distances from inhabited areas, is now rampant, especially during the early hours of the morning.

It is difficult to fathom how law enforcement is not managing to come to terms with these infringements, given that they are so blatant and easy to spot.

Coupled with this widespread flouting of the law are the infringements linked with bird trapping, with golden plovers even being sold on the internet in preparation for the upcoming trapping season, despite the Damocles sword of the EU infringement proceedings hanging over Malta's head. Here again, how is it possible that people can openly publicise the sale of these birds on the internet with such impunity, without anyone involved in law enforcement in Malta batting an eyelid?

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