

A tunnel for Gozo: Is it the best solution?

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Newspaper opinion piece: The Malta Independent on Sunday, 26 May 2019

Citation:

Ebejer, J. (2019, May 26). A tunnel for Gozo: Is it the best solution? The Malta Independent, pp. 18-19.

Key words: Gozo, Gozo tunnel, sustainable transport, land reclamation, planning process

Until some time ago I had no strong view either way for or against the Gozo tunnel. That was until I was recently asked to give a lecture on the subject. I carefully looked up whatever information was available. I read the document 'Economic Cost Benefit analysis of available strategic options' (ECB, dated September 2015) and it was then that I became convinced that the decision to build the Gozo tunnel is a wrong one. The document clearly was drafted to justify a decision that had already been taken, but, in so doing, it made statements that were not supported by reliable information and reasoned argumentation.

On financial viability

The Economic Cost Benefit analysis (ECB) claims that no public financing will be required for the Gozo tunnel. The ECB assumes that the tunnel will generate sufficient revenue to cover the capital cost and the running costs. The ECB estimate for the capital cost is 300 million euros. Preliminary research of various road and tunnel projects across Europe suggests that the 300 million figure is very optimistic. More crucially at the time the ECB was written, there was no technical information on how the tunnel will be built. There were, and still are, questions at what depth the tunnel will be. Will it be a deep-seated tunnel passing below the Blue Clay layer or will it be shallow-seated above the Blue Clay? What will the tunnel width be? Going by the description and photo in the Project Description Statement (PDS), the tunnel width will be 9.5 metres. On the other hand, the PDS also refers to emergency lay-bys alternating on both sides. This would push up the width to approximately 13.5 metres. Which will it be?

The ECB is based on a length of 10 to 12 kilometres. This has been changed and a length of at least 14 kilometres is more likely. There is no information on how the tunnel will be drilled nor on the detailing of the tunnel wall. These specifications are essential to arrive to a reasonable cost estimate. They were lacking when the ECB was drafted so the cost estimate of 300 million euros can only be considered to be a wild guess.

In its costs estimate, the ECB does not take into account interest costs which will surely be substantial. This is a significant omission that makes the claim of financial viability seem all the more unrealistic.

In estimating income, the ECB ignores the fact that the ferry service will continue to operate. For various reasons, many will still choose to commute by ferry. Some may prefer the Gozo ferry experience. Others might fear spending 15 minutes driving in a long underwater tunnel and still others might choose the ferry because of the price. Either way this could severely impinge on operator's financial calculations.

To eventually make a profit, the annual income, over say a 20 year period, has to be sufficient to cover (i) the capital cost (which the ECB optimistically estimates at 300 million euros) (ii) the operational cost (estimated to be 9 million euros per year) and (iii) the interest repayments. Being a high risk project and because of the likely cost overruns, it is reasonable to assume that the interest costs will be as high as 15 million euros annually.

The ECB states categorically that the tunnel will require no public financing. This conclusion is evidently incorrect because important cost elements have not been taken into account and because there is insufficient information on the technical details of the tunnel.

On land reclamation

The 300 million euro cost estimate is made all the more suspect when one considers that an important cost element has been left out – namely the cost of disposal of inert waste. The Project Description Statement (PDS) claims that there will be one million cubic metres of waste. When talking about reclamation, some people seem to think that this is the dumping of construction waste in shallow waters. Land reclamation is much more than that.

Reclaimed land needs to be adequately protected from wave action to prevent it from being washed away. This requires marine-based protective structures, making land reclamation difficult and very expensive. In Parliament two past land reclamation projects were mentioned, namely the Freeport and Msida. What the speaker failed to mention was that the former is protected by a huge and costly breakwater, whereas the latter was a small area of sea that was being silted up anyway because of rainwater runoff down Birkirkara valley.

Whether dumped at sea or used for land reclamation, there is a significant cost involved to transport and dispose of the waste. This cost was not factored in the ECB cost estimate.

Apart from cost, the disposal of waste raises environmental issues. This will have huge environmental implications with the loss of a significant stretch of natural coastline, either at Bahar ic-Caghaq or Xghajra. Environmental impact of the land reclamation is a non-financial cost that should be considered when deciding whether to go ahead with the project.

Following the Norwegian model?

In claiming no public financing, the ECB suggests that the private operator will recoup the capital and operational costs from the tolls paid by vehicles using the tunnel. It was hinted that this is the financial model used in Norway. This is not correct. In Norway revenue from road tolls goes to a central government-managed fund. Together with public finances, these funds are then used to finance road and tunnel projects as decided by the national government. The idea that a private operator will recoup his capital and operating costs from the tolls is not doable.

Some people have put forward the argument that underwater tunnels are a common component of Norway's main road network. There are in fact some 30 underwater tunnels in Norway built in the past three decades. Most are less than 6 kilometres. The longest which is completed and in operation is 9

kilometres long (Karmoy tunnel). The Gozo tunnel will be 14 kilometres – a length that is technically very challenging, even for experienced designers and contractors. The cost per kilometre run of tunnel is higher for longer tunnels because of increased time and effort required to transport workers and materials in and out of the tunnel. Another difficulty in longer tunnels is ensuring that air quality remains of sufficient quality, during construction and eventually when in operation.

The procurement procedures in Norway are robust both at the design tender stage and then subsequently at supervision and eventual disbursement. Such a robustness has been developed over many years experience of building tunnels and road projects, coupled with a strong culture of ethical correctness in the public sector. Regretfully not the same can be said for Malta. Poor supervision on procurement, combined with lack of experience, may result in tunnel costs spiraling out of control. Unconvincing is the argument that since it's been done in Norway, than it can also be done in Malta.

Short-circuiting the planning process

The disposal of the significant volumes of inert waste raises another concern in relation to the planning process. When eventually the Planning Authority approves the project, it is duty bound to ensure that all environmental and planning issues are adequately resolved. The disposal of one million cubic metres of waste is a fundamental issue for which no realistic solution is in sight. In the parliamentary debate, there were references to a solution being found by the relevant authorities, but these were vague and unconvincing. A solution is needed for the waste problem, one that is backed up with proper environmental and other studies and, at the very least, with an outline development application. The likely scenario in the coming weeks and months will be that the PA approves the project without a proper solution for the disposal of waste. In doing so the Planning Authority will be abdicating its responsibilities towards us the public, and towards the environment.

It is being claimed that an Environmental Impact Assessment is being carried out. Of course this is an essential requirement for the eventual development permit, but I would argue that it is not enough. Last month, twelve NGOs filed a judicial protest arguing that a Strategic Environmental Assessment for the tunnel is needed – they are right. In accordance to national legislation and EU directives, any plan or programme prepared by a public authority which is likely to have a significant effect on the environment should be subjected to a Strategic Environmental Assessment. The implications (both positive and negative) of the tunnel project are far reaching for both Malta and Gozo, but especially for Gozo. Because of the far-reaching implications, the Gozo tunnel project should be considered tantamount to a programme and therefore an SEA is required.

The debate in parliament

The recent debate in parliament was very disappointing, not so much for the vote, but for the way our elected representatives decided without reference to reliable information.

The information that is available on the tunnel is sketchy to say the least. There is virtually no technical information on the construction and route/depth of the tunnel. There is no indication how the huge amount of waste will be disposed of. Studies on environmental impact are not yet complete. It's like a

doctor prescribing an untried and untested medication to a patient and doing so without a proper understanding of what the patient's symptoms are. The only publicly available information on the Gozo tunnel are the Economic Cost Benefit analysis, the Social Impact Assessment and the Project Description Statement. The first document is fundamentally flawed; the conclusions of the second are debatable; the third gives generic technical information, but no details.

Since our elected representatives were asked to take a vote on the project, one would have expected, at the very least, that some essential information would be released. The fact that this did not happen raises further suspicions that there are significant technical, environmental and/or planning obstacles to the project and that the government is choosing to ignore them.

Many people are genuinely concerned about the tunnel project. Twelve NGOs filed a judicial protest calling on the authorities to publish all the studies so that citizens may develop an opinion based on facts. Gozo University Group and Wirt Ghawdex have also expressed concerns. The latter carried out its own analysis and concluded that, on balance, the impacts on Gozo will be negative, including on the natural environmental, on the built heritage and on the cultural and social heritage. The Gozo Tourism Association called for a study to analyse what impact the Gozo tunnel will have on Gozo's tourism. Tourism is of central importance to Gozo's economy and therefore the GTA are justified to make this demand. All these various voices were ignored and this is another disappointing aspect of the parliamentary debate.

In the debate, no information was given on the costs nor how the tunnel will be funded. When the Gozo tunnel debate began many years ago, it was suggested that the tunnel will be financially viable and that therefore it will be the private sector that will carry it out. This was based on the document 'Economic Cost Benefit analysis of available strategic options' (September 2015) which, as shown above, a closer examination reveals to be fundamentally flawed. There have been hints that the tunnel will be partially funded by the EU. This is very unlikely because the EU will only fund projects that have a strong justification and that are adequately backed up with proper studies. The only remaining option is that the tunnel will be funded from the public purse, a prospect about which most taxpayers are very displeased.

What alternatives?

No one disputes that commuting between Malta and Gozo should be facilitated. What is being disputed is whether having a tunnel is the best solution. Suggestions that are being put forward include more frequent ferry services, a fast ferry to Valletta and direct bus services from Cirkewwa to Mater Dei /University and to Valletta. I would also argue that improved transport services for Gozo commuters should be heavily subsidised by the government. Subsidies will not only improve connectivity between Gozo and Malta but it will also encourage people to use public transport, as opposed to their private cars. This would be a tangible move towards more sustainable forms of transport. For the public purse, subsidising commuting for Gozitan residents will be far cheaper than spending hundreds of millions of euros for a tunnel.

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