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Environment & Resources Authority  
Hexagon House  
Blata I-Bajda**

**13<sup>th</sup> August 2018**

**Submissions in respect of EIA Terms of Reference  
relative to the proposed tunnel between Malta and Gozo**

I write on behalf of **Alternattiva Demokratika – The Green Party** with reference to the public consultation on the EIA Terms of Reference relative to the proposed tunnel between Malta and Gozo.

What follows is an explanation of a number of issues that **Alternattiva Demokratika – The Green Party** considers should be addressed in the Terms of Reference which are yet to be drafted.

## **Transport Policy**

The Project Description Statement (PDS) submitted to ERA by Transport Malta<sup>1</sup> in the section entitled *Background and Purpose*<sup>2</sup> places considerable emphasis on the number of vehicles crossing between Malta and Gozo. After highlighting that in 2015, according to NSO statistics a total of 1,348,502 vehicles made the crossing, the PDS proceeds to emphasise that this was a 5.4% increase over the previous year.

This establishes one of the essential elements of the proposed tunnel project, the facilitated movement of vehicular traffic, between the two main islands of the Maltese archipelago, which is on the increase. The PDS then, on the basis of a study commissioned by Transport Malta and the Gozo Business Chamber and carried out by E-Cubed Consultants<sup>3</sup> argues that the average annual daily traffic (AADT) between the islands is projected to increase from 3000 to 9000 vehicle movements over a 15-year period<sup>4</sup>.

The E-Cubed study was carried out before Transport Malta approved its Strategy<sup>5</sup> and Master Plan<sup>6</sup> and hence the said Strategy and Master Plan are not factored in the assumptions made in order to arrive at a 9000-vehicle movement figure daily.

Basically, the proposed tunnel requires a critical mass of vehicular movements which would be subject to the payment of a toll and hence contribute to the recovery of the capital outlay, maintenance costs and profits. This runs counter to current Transport policy, which (at least on paper) aims to reduce the use of private cars.

It is indeed very strange that at this preliminary stage, the PDS does not make any reference whatsoever to the National Transport Master Plan<sup>7</sup> and the National Transport Strategy<sup>8</sup> both of which, funded by the European Regional Development Fund, were published by Transport Malta in 2016 after being approved, and which, to put it mildly, propose strategies which are

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<sup>1</sup> **Transport Malta** (2018).

<sup>2</sup> *Ibid* p.5

<sup>3</sup> **E-Cubed Consultants** (2015).

<sup>4</sup> **Transport Malta** (2018) p.5

<sup>5</sup> **Transport Malta** (2016a): National Transport Strategy 2050. Malta.

<sup>6</sup> **Transport Malta** (2016b): National Transport Master Plan 2025. Malta.

<sup>7</sup> **Transport Malta** (2016a): National Transport Strategy 2050. Malta.

<sup>8</sup> **Transport Malta** (2016b): National Transport Master Plan 2025. Malta.

in substantial contrast to the above basic requirements essential for the financial feasibility of the proposed tunnel!

The National Transport Strategy, taking a long-term view over its lifespan until 2050 emphasises a number of Guiding Principles amongst which the need to create a modal shift “towards sustainable transportation modes such as public transport, walking, cycling and other shared and active modes”.<sup>9</sup>

On the other hand, over its 10-year lifespan, the Transport Master Plan, as an integral part of its operational objectives aims to provide alternatives to the use of private vehicles, to reduce the role of the car as a means of transport in the Maltese Islands.<sup>10</sup>

These are fundamental issues which for some inescapable reason have been omitted in considerations brought forward in the PDS submitted for the public consultation by Transport Malta, as a result misleading the public consultation process. It is respectfully submitted that this omission will possibly direct the public consultation exercise away from discussing real issues which are of direct relevance as to whether there is a real need for the tunnel between Malta and Gozo.

Consequently, without prejudice, I draw your attention that this act of deliberately misleading the public consultation process may vitiate the whole EIA process examining the environmental impacts of the proposed tunnel project between Malta and Gozo.

If the Transport Policy of discouraging the use of private cars were to be adequately implemented by Transport Malta there is no way in which the proposal for a tunnel between Malta and Gozo would ever make sense, not even on the drawing board.

It would be appropriate if this matter is addressed forcefully and appropriately by the Authority.

### **Realistic costings of the proposal**

It is recognised that at this stage it is difficult to identify precise costings, in particular due to the fact that the geological studies have not yet been concluded<sup>11</sup>. As a result, no design can be final at this stage. In fact, according to the PDS, so far there is no design of the proposed tunnel.

Mott MacDonald, in their preliminary analysis have identified various price ranges, of different types of tunnels, prices which range between €156 million and €1080 million and

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<sup>9</sup> Transport Malta (2016a): p 154.

<sup>10</sup> Transport Malta (2016b): pp. 87-161

<sup>11</sup> Transport Malta (2018) pp.6-8

are pegged to 2010 costs. As rightly emphasised these are just indicative as accurate cost estimates can only be prepared once the geotechnical investigations have been concluded and the first designs prepared.<sup>12</sup>

The PDS discusses the four options for the proposed tunnel route as identified by Mott MacDonald and indicates that the fourth option, with a variation, is apparently the preferred option for selection. This is however qualified by the statement that the tunnel alignment and the portal exact areas are still not set, since these will be decided at the Conceptual Design Stage.<sup>13</sup>

This information indicates that probably the proposed tunnel will have a length of approximately 11.5 kilometres between the Malta portal at L-Imbordin and the Gozo portal at Nadur below Ta' Kenuna. Consequently, the indicative price range adjusted on the basis of the Mott MacDonald conclusions at 2010 costs would be even higher than those indicated above.

One cannot embark on studies to determine economic feasibility or otherwise before determining more realistic prices. It is for this purpose that basic design decisions have to be taken in order that studies undertaken as part of the EIA process are realistically anchored.

## **Water Table at il-Mizieb and elsewhere**

It is submitted that Transport Malta's preferred route for the proposed tunnel, at this stage, is a variation of the fourth option in the Mott MacDonald study<sup>14</sup>. The PDS explains that the portal on the Malta side will be located at L-Imbordin, between Manikata and the Pwales valley. "The main reason for this being a good portal area is that the tunnel will enter into the steep rock escarpment, thus resulting in a short portal area, with the rock cover building up quickly. Along the escarpment, a portal location can be found that will minimize the footprint of the project. Furthermore, this location is at a short distance to the road leading to Route 1 on the TEN-T, thus limiting the length of access infrastructure required. The elevation is also very close to sea level; thus, the tunnel length would be minimized."<sup>15</sup>

The drawings forming part of the PDS indicate that the proposed portal on the Malta side may have considerable impacts on the Mizieb perched aquifer, the best quality source of

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<sup>12</sup> **Mott MacDonald** (2012) pp.70-1

<sup>13</sup> **Transport Malta** (2018) p.11

<sup>14</sup> **Mott MacDonald** (2012) pp.70-1

<sup>15</sup> *ibid*

groundwater still available on the Maltese islands. If this were so, it would be in direct conflict to the provisions of the Water Framework Directive of the EU<sup>16</sup>.

In the past 10 years other major projects planned for the area were aborted at the eleventh hour for the simple reason that they too ignored possible impacts on this same aquifer. These projects were the golf course planned for the Xagħra l-Ħamra and part of the TEN-T network<sup>17</sup>. Those promoting these projects failed to identify this issue at the drawing board stage and had to face the music at the eleventh hour.

Apparently, the promoters of the Malta-Gozo tunnel are likewise not aware of this matter, or else they have dismissed it as insignificant, as otherwise they would have undoubtedly discarded the selected option (with variation) immediately as has rightly been done with other serious environmental issues. In fact, the original fourth Mott MacDonald option as well as the first and second options were discarded by the tunnel promoters due to their possible impacts on the Għadira Nature Reserve, an EU Natura 2000 site<sup>18</sup>.

However, having avoided the Għadira Nature Reserve, the Malta portal of the tunnel proposal at L-Imbordin and the associated access road infrastructure is too close for comfort to the Simar Nature Reserve, which is another EU Natura 2000 site. This will be heavily impacted both during the excavation stage but also when the tunnel is operational as a result of the heavy traffic generated – projected to be close to 9000 vehicle movements daily<sup>19</sup>. These impacts have to be analysed in detail in view of the provisions of the Habitats Directive<sup>20</sup> of the EU which Malta is bound to observe.

In this context it may be pertinent to point out that impacts on an ecosystem are not limited to the immediate area disturbed. Such impacts may result at a distance which, at first glance, may be unrelated. In this respect it would be appropriate if the impacts on the Pwales valley ecosystem is analysed in detail as has already been done in respect of other projects in the area.<sup>21</sup> Such an ecological analysis of the Pwales Valley ecosystem would include an

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<sup>16</sup> Directive of the EU published in the Official Journal of the EU on the 22 December 2000 and entered into effect on the same day. [http://ec.europa.eu/environment/water/water-framework/index\\_en.html](http://ec.europa.eu/environment/water/water-framework/index_en.html)

<sup>17</sup> The EIA documentation for both projects is not available on the ERA website.

<sup>18</sup> **Transport Malta** (2018) p.10 “The area being considered for the portal on the Malta side is located at Imbordin, between Manikata and the Pwales valley, along the entire escarpment ..... The main reason for this being a good portal area is that the tunnel will enter into the steep rock escarpment, thus resulting in a short portal area, with the rock cover building up quickly. Along the escarpment, a portal location can be found that will minimize the footprint of the project. Furthermore, this location is at a short distance to the road leading to Route 1 on the TEN-T, thus limiting the length of access infrastructure required. The elevation is also very close to sea level; thus, the tunnel length would be minimized.”

<sup>19</sup> **Transport Malta** (2018) p.5

<sup>20</sup> Directive of the EU adopted in 1992.

<sup>21</sup> **ADI Associates Environmental Consultants Ltd** (2016b): Technical Appendix 2 (Geo-technical Investigations Report), Technical Appendix 3 (Geo-Environmental Baseline Report) Technical Appendix 4 (Sediment and Water Quality Baseline Report) and Technical Appendix 7 (Avifauna Baseline Report).

examination of the hydrological impacts linking the Simar Nature Reserve to its sources of nourishment.

Within this context it is pertinent to point out that the Habitats Directive obliges EU member states to ensure that even sources outside the perimeter of the protected habitats themselves are curtailed in order to ensure that spill over impacts are eliminated.<sup>22</sup>

In this submission I have not gone into issues of agriculture (primarily the impacts on farmers in the zones around the portals at L-Imbordin and below Ta' Kenuna Nadur), air quality, the carbon footprint of proposal, waste management, discharges, residues and emissions, noise and vibrations, general ground water issues, flora and fauna issues as well as economic impacts as these are the normal areas of investigation expected from an EIA relative to the proposal under consideration. I have limited my submissions and observations on areas and issues which perusal of the PDS indicates that Transport Malta is trying its best to avoid.

In view of the above it is submitted that, the terms of reference for the Environmental Impact Assessment for the proposed Malta-Gozo tunnel should include an examination of the following issues:

1. Transport Policy: in particular the proposed tunnel should be examined in view of the provisions, targets and policy objectives of the National Transport Strategy 2050 and the National Transport Master Plan 2025. Such an examination should also lead to the consideration of alternative solutions to the proposed tunnel.
2. The geological studies should be concluded and be examined critically.
3. The preliminary designs should be concluded, and on this basis preliminary realistic costings should be concluded and be subjected to a critical analysis. In particular a realistic feasibility study should form part of the EIA.
4. A detailed analysis on the impact of the tunnel proposal on the water resources along the whole route of the tunnel should form part of the EIA studies. In particular the impacts on the Mizieb aquifer should be analysed in detail in view of Malta's commitments spelt out in the Water Framework Directive of the EU.
5. A detailed analysis of the tunnel proposal on the Pwales Valley eco-system, including most importantly the Simar Nature Reserve, an EU Natura 2000 site, should form part of the EIA studies primarily to understand the impact of the proposed intervention on the valley eco-system but also in view of Malta's commitments spelt out in the Habitats Directive of the EU.

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<sup>22</sup> Habitats Directive of the EU articles 6, 7 and 8

It is pertinent to point out that the available documents indicate that the proposed tunnel would have a practical lifespan of approximately 120 years<sup>23</sup> & <sup>24</sup>. This would signify that over this lifespan there would be no interest in reducing cars from our roads as this would undermine the economic feasibility of the tunnel.

In conclusion it should be emphasised that the National Transport Strategy 2050 and the associated National Transport Master Plan 2025 if properly implemented offer reasonable solutions to current issues of sustainable mobility. This is certainly not business as usual and should be analysed appropriately. It is submitted that it would be pertinent to seek implementation of the said strategy and master plan (still in the initial stages) before embarking on the examination of extraordinary solutions like the proposed tunnel between Malta and Gozo.

**Carmel Cacopardo**  
**Chairperson Alternattiva Demokratika – The Green Party**

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<sup>23</sup> **Mott Macdonald** (2012): p.72: A tunnel structure is normally designed for 120 years, although it can be expected to last for longer. This can be assumed as a practical lifetime.

<sup>24</sup> **Transport Malta** (2018): p.18: A road tunnel has typically a wide range of specified service life for its installations and equipment, ranging from 20 years to 120 years, which means that some of the installations in the tunnel will reach the end of their service life during the Concessionaire period.

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