Congestion in Malta

Malta is an island state with an area of just 316km² with a population of 417,432 (NSO, 2014a). Malta developed economically at a stable rate of increase since the early 90s.

This economic growth has also reflected on its demographic and land use patterns. Population growth has slowed down in the last two decades mostly because of a fall in the birth rate. Mobility patterns of the population have changed significantly.

Since the early 90s, Malta experienced a rapid growth in motorization and a decline in public transport use and in active mobility (walking and cycling). This is most evident in the national modal split (Figure 1).

Other factors that contributed to the growth in motorization are:

- Increase in Household Income
- Increase in Car Ownership and Car Use
- Inappropriate coordination between transport and land use
- Inadequacy of public transport services
- Road Infrastructure
- Cost of private transport

Malta has 9.5% of the total network heavily congested when compared to the EU average of 1.7%. Peak hour congestion is a major problem in Malta, when compared to the other European Member States (Table 1).

Figure 1. Modal Split for Malta 1989-1998-2010 (Transport Malta, 2011)

Table 1. Average delay per km compared to the European average

<table>
<thead>
<tr>
<th>Average number of seconds of delay per km in Malta</th>
<th>European Average</th>
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<tr>
<td>16.93 seconds</td>
<td>5.74 seconds</td>
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The two districts with the highest Congestion Index (showing the average seconds of delay per km) are the Northern Harbour and Southern Harbour regions (Figure 2). Figure 3 shows the geographic extent of congestion on the main road network.

Figure 2. Congestion Index Per District showing average seconds of delay per km

Figure 3. Road Congestion Index 2013 for Malta (JRC, forthcoming)

Congestion and Climate Change External Costs

For Climate Change, external cost calculations are often based on estimated avoidance costs rather than damage costs. Road transport in Malta dominates CO₂ emissions and are therefore very relevant for estimating climate change effects. The emissions for 2012 were derived from the estimated average annual emissions for vehicles and modified to account for average km per year, applicable for Maltese commuters (7,800km). The average emissions were estimated at 1,785 kg per year and based on the total number of vehicles (291,975) the total kg for all cars per year was derived. A central value of €90 per tonne was applied. The total abatement (or avoidance) cost of climate change in 2012 was estimated at €46.8 million.

Key Recommendations of the Study

- An effective public transport service is a key component to encourage modal shift and reduce the external cost of transport.
- Road pricing and paid parking, supported by complementary educational, environmental and planning measures, could prove effective in reducing the impact of transport.
- Studies are needed to investigate the policy on land use and how this affects transport patterns and future development.