



Number of Cars Owned/Household

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Beirut, once titled "the pearl of the Middle East", was transformed by a 15-year war into a genuine noman's-land. Cities were damaged, roads were impaired, and train operations halted. Since then, Lebanon has lacked a sustainable and efficient transport system and infrastructure, exacerbating the level of congestion on the roads. Lebanon's stifling traffic crisis has turned into a daily ordeal for commuters. The absence of serious plans to improve public transportation has weighed down heavily on Lebanon's economy as well.

Lebanon is a small country with most of the big companies and main government divisions centralized in its capital, Beirut. Out of the 4.5M Lebanese inhabitants 1.3M live in the Great Beirut Area, causing the capital to be densely populated. Commuters rely heavily on private vehicles to go to work and for leisure purposes, due to a lack of efficient and regulated public transport. According to Urban Transport Development Project, passenger vehicles reached 434 per 1,000 in 2012, ranking Lebanon in the 17th place worldwide. The project conveyed that 50% of Lebanese households own 1 car, while 25% own at least 2. A study conducted by the Issam Fares Institute for Public Policy and International Affairs, "Economic Impact of Adopting a Sustainable Transport System in Beirut" revealed that Beirut Central District roads experience 2 peak periods during the weekdays: the morning peak period between 8:00 a.m. and 11:00 a.m., and an evening peak period between 4:00 p.m. and 6:00 p.m. Traffic volumes in Great Beirut Area's main arterials range between 50,000 and 80,000 vehicles per day, with peak hour volumes reaching 7,000 per hour on the northern approach to Beirut. Peak hour speeds range between 30km/h on main roads to less than 10km/h on local streets. 81.3% of these vehicles consist of private cars, with occupancy of 1.6 persons/vehicle. The cost of Beirut's congestion to the country's economy is substantial. A study by the Ministry of Environment in 2005 assigned the cost of urban congestion at around 8% of Lebanon's GDP at the time; when traffic volumes would have been lower than today. Daily motorized trips within the Greater Beirut Area are expected to increase to 5,000,000 by end 2015.

Source: Urban Transport Development Project



Lebanon lacks any form of mass transit, or regular and reliable public transport services, despite the high population density and relatively short distances which generally favor such types of systems. Public transport in Lebanon is primarily provided by taxis and microbuses, with a high number of these vehicles being not properly regulated. This results in high operational and maintenance costs incurred by car owners. These costs include fuel consumption, taxes, insurance and car service. Commercial investment in cars as a mass transportation system, including the import of vehicles, replacement parts, fuel and related costs, was estimated to be over 7.5% of the country's GDP.

Customs and Excise Taxes for New and Used Cars

| | Used Vehicles | New Vehicles | |
|--------------|--|--|--|
| | LBP 500,000 if import price is leass than LBP 20M | 5% of value | |
| Customs | 500,000 + 5% of the difference between import price and LBP 20M | | |
| | LBP 4.5M if import price is less than LBP 20M | 15% of import price if less than or equal to LBP | |
| Excise | LBP 4.5M + 45% of difference between import price and LBP 20M | 20M and 45% if above | |
| Source: Cust | oms | | |

The continuous growth in the number of vehicles on the roads poses a major concern as the number of road accidents is expected to increase as traffic volume increases. Road traffic accidents – the leading cause of death by injury and the 10th leading cause of all deaths globally – make up a surprisingly significant portion of the worldwide burden of ill-health¹. Car accidents reached 4,205 in Lebanon in 2012. According to a study done by the Director General in the Ministry of Public Works and Transport, traffic accidents in Lebanon were estimated to cost the national economy about 1.5% of its GDP.

One should also note that the high dependency on cars causes environmental problems. 25% of CO₂ emissions come from the land transport sector. Moreover, cars produce a substantial noise pollution, due to dense traffic, old vehicle engines and excessive honking. Noise levels on average exceed 75 dB, whereas the standard level is 72 dB.

Up until, now many projects with the aim of improving roads and infrastructure were conducted. Since the 1960s, the Lebanese government had plans to build a bypass to Beirut to ease through traffic; however the expansion of the road network is difficult and costly due to the high cost of land and the mountainous terrain.

Since 1992 and until 2013, transport projects awarded have reached about \$ 2.21B among which \$1.25B executed and \$963M still under execution. Some contracts awarded during 2013, and projects in progress, are shown in the tables below.

¹ www.globalroadsafety.org



Major Contracts awarded during 2013

| Project | Contract Amount (\$) | Source of Funding | Starting Date | Expected Execution |
|---|----------------------|------------------------|------------------|-----------------------|
| Preparation of the tender document related to the addition of link roads as part of the project of Amchit-Maifouq road and supervision of implementation | 1,031,800 | CDR | 03/04/2013 | 03/09/2013 |
| Expansion of a section of Beirut-Tripoli highway running from Karantina Bridge towards Charles Helou Station for Travel and Transport | 8,971,076 | Municipality of Beirut | 10/07/2013 | 31/08/2015 |
| Elaboration of a study aimed at modifying the design of the highway of the ring road encircling Beirut City, Hadath- Laylake-Tahwitat el Ghdair-Borj el Brajne section | 126,500 | CDR | 22/01/2013 | 23/07/2013 |

Major Projects in Progress 2014 – 2015

| Project | Contract Amount (\$) | Source of Funding | Starting Date | Expected Execution |
|---|-------------------------|---|------------------|-----------------------|
| Eastern ring of Tripoli Project | 100,000,000 | Islamic Bank for Development | Sep-14 | Sep-18 |
| Completion of South highway until Tyre entrance | 35,000,000 | Proposed to the Saudi Fund for Development | Mar-15 | Mar-17 |
| Construction of a 12.7 km road between Jamhour and Baalechmey | 300,000,000 | Proposed to the World Bank | Dec-15 | Dec-18 |
| Hadath-Dekweneh 6.2 km road (Ring road for the city of Beirut) | 250,000,000 | Proposed to the World Bank | Dec-15 | Dec-18 |

Source: Council for Development and Reconstruction

One project that is expected to be appraised by the World Bank on February 2016, is the Greater Beirut Urban Transport (GBUT) project. This project is estimated to cost \$200M, which will be financed by the International Bank for Reconstruction and Development. The objective of the GBUT project is to improve transport connectivity and mobility on Beirut's northern entrance between Tabarja and Beirut. This will be achieved through the construction of a new Bus Rapid Transit (BRT) system between Tabarja and Beirut, establishment of feeder bus services to the trunk BRT line and within Beirut, and establishing appropriate institutional arrangements for the management, operation, and maintenance of the new mass transit system. The line of service would begin in the Tabarja-Jounieh area, a major populated area and feeder for Beirut, and pass through the densely inhabited northern suburbs of Beirut before ending in the city's center.

Moreover, the Ministry of Transport had prepared a bus study for Greater Beirut which has identified about 20 regular bus routes. The Lebanese government had approved the purchase of 250 buses as a start; however political challenges had stalled the allocation of funds, where only 30 buses were purchased in 2 installments.

The Ministry was also assessing the introduction of a freight and passenger railway on the old railway alignment between Beirut, Tripoli and the Syrian border in the north. However, such a project will be both financially and technically difficult to implement. According to the Directorate General of Land and Maritime Transport, the Beirut – Tabarja railway line could be made operational again at a cost not exceeding \$250M, with a yearly profitability rate of 14%.

Transportation Sector: Problems and Solutions



Lebanon is in dire need of a sustainable public transport system. Projects aimed at improving transportation in Lebanon have displayed an over-reliance on foreign funding. In fact, Lebanon's private sector has continuously demonstrated its superior ability in achieving the necessary results to drive the country forward. Therefore the public sector is encouraged to participate in public-private partnerships as a means of upgrading the Lebanese means of transportation. For instance, toll roads could be built and operated by the private sector. Furthermore, the "Beirut Water Taxi" project, which has been awaiting government authorization since 2010, should be initiated. This project was intended to transport passengers all over Lebanon's coast. Another project could be adopting Paris's "Bicycle Taxi", a self-service bike system available 24 hours a day, where commuters take a bike from a bike station, and return it to another bike station close to their destination. Adopting a sustainable transport system would generate a lot of benefits. First and foremost, traffic volume would decrease. This in turn reduces stress levels and lost time due to congestion, allowing employees to be more productive and able to focus on tasks ahead. Moreover, due to the reliance on public transport, company costs would decrease as there would be no need for building underground parking or renting parking spaces. In addition, an effective transportation system would decrease accidents, air pollution and noise pollution. On a country-level, Lebanon's balance of trade would improve due to lower imported cars as "Vehicles, aircraft, vessels, transport equipment" rank fourth most imported goods, with a 7.36% share.

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