“Not one of us here has not been involved in a traffic jam in one way or another, not one of us has not been greatly inconvenienced by the heavy traffic Lebanon and many major cities in the region suffer from, this inconvenience comes at a price…” this is how Dr. Nadim Farajalla, Faculty Research Director of the Climate Change and Environment in the Arab World Program at the Issam Fares Institute for Public Policy and International Affairs (IFI) at the American University of Beirut (AUB) opened the one-day regional conference “Building the Case for Sustainable Transportation in the Arab World”, organized by the Program. As the title implies the conference aimed to present evidence in support of sustainable transportation modes, systems and strategies in Arab countries as opposed to the prevailing transport “way of thought” which has many economic, environmental, health and social drawbacks.

The first session, chaired by Dr. Richard Tutwiler from the American University in Cairo (AUC), explored the concept of sustainable transportation globally and looked into related regional policies. Dr. Sgouris Sgouridis from Masdar University in Abu Dhabi, started the session by presenting his five thoughts on transportation transition challenges. The presentation set a general background on transitioning the energy system into a more sustainable one with a focus on transportation. The energy fed into the transportation system results in only 20% of applied and used energy due to the inefficiency of current vehicular engines. The presentation explored links between the way societies operate and the availability of energy sources. Focusing on fossil fuels, Sigouris proposed a parallel investment in renewables, thereby overcoming the limited amount of fossil fuels. His five thoughts are:

- The future of transport is electric
- Building infrastructure alternatives proactively
- Building them early (while there are sufficient energy/fiscal resources)
- Offer no alternative (selectively) to gently redirect social norms
- Strive for optimal allocation of limited energy resources

Dr. Farid Chaaban followed by presenting an IFI-funded research paper and co-authored with Dr. Isam Kaysi from AUB's Faculty of Engineering and Architecture. The paper shows how sustainable transport policies in the region were benchmarked against those of US and Europe. The research highlighted that the main challenges in applying a more sustainable transport system are the lack of funding, the lack of technical expertise, the lack of accurate data, the lack of communication among stakeholders, and the lack of awareness. Dr. Chaaban concluded with the
following recommendations: (1) encourage the implementation of structured policies; (2) improve the fuel standards; and (3) develop public transportation and better traffic management systems.

Zooming into an example of green transportation modes that could be encouraged within policies, Ms. Alexandra Irani, and Dr. Ali Chalak from AUB’s Faculty of Agricultural and Food Sciences, presented their IFI-funded study, on Motorists’ Willingness to Switch to Clean-Fuel Vehicles. The missing implementation of tax exemption for Hybrid Electric Vehicles (HEVs) was the motive behind the study. The authors of this study tested the willingness of commuters to start using HEVs under different scenarios. Results showed that a reduction of 50% import tax on HEVs and registration fees exemption would result in a net saving of $5,684 USD for car buyers through reduced fuel consumption and lower CO2 emissions. Accordingly, a change in HEV policies could help in enhancing people’s decision when purchasing cars, and even though this mode will not reduce congestion it will help in reducing pollution levels.

The second session, chaired by Dr. Mounir Mabsout from the Center of Civic Engagement and Community Service at AUB, focused on the economic and socioeconomic aspects of sustainable transportation. A presentation by Dr. Maya Abouzeid and Dr. Ali Chalak from AUB showed commuters’ behavior towards upgraded bus services in greater Beirut. The study, also funded by IFI, was based on decreasing greenhouse gas (GHG) emissions from transportation by encouraging people to use a more appealing bus service. Accordingly, a survey was conducted taking into consideration all the different aspects that would support turning car commuters into bus commuters. The proposed attributes and amenities for the new improved bus service were: the frequency of busses; walking distance and time to bus stops; travel time and additional travel time required to reach destination; number of transfers, the fair, security and safety, air conditioning and Wi-Fi availability. The study looked into three scenarios: improving service attributes only, improving amenities only, or improving both. Results showed that the highest expected shift is when both the service attributes and the amenities are improved. Although the emissions reductions projected by the study are rather modest (2.2 percent of transport, and 0.43 percent of overall, GHG emissions), they probably under-estimate the spillover effect the change would have on a society as a whole.

“The Economic Impacts of Adopting a Sustainable Transport System in Beirut” study presented by Dr. Mazen Omran focused on the different economic attributes associated with a shift in transport methods. The IFI-funded study, was based on the fact that Beirut is already facing high levels of congestion with the expectation of an additional increase in congestion levels due to the plans of further developing the central Beirut and waterfront area. However, the development of the transport sector in that area is lagging and the choices of transportation are very limited and leading to high rates of pollution, and thus do not attract international investors to make Beirut a financial hub. A survey was conducted to quantify the economic benefits of sustainable transport systems in terms of time, operation cost, and road safety focusing on Beirut's central district and its waterfront. The study showed two traffic peaks, one in the morning and one in the afternoon; traditional peak hours fully cover the peak period, with an ongoing congestion all day. Private cars
and taxis constituted the highest percentage of vehicles used, and the highest quantified value for a shift in transportation is the value of time. A new sustainable transport system is expected to reduce delays and increase in time productivity, where net benefits could reach 21 million Lebanese Pounds during congestion hours. The action plan suggested was to determine the best transport system and its requirements (priority for bus lanes). It was emphasized that there is no need to constantly build new roads; sometimes it is better to optimize the actual existing system and provide other alternatives.

The last session moved into specific case studies from the region. The session, chaired by Dr. Sgouris Sgouridis, started with a case study on transportation and mega sporting events in Qatar, presented by Dr. Danyel Reiche and Mr. Robert Wittkuhn. The study analyses whether Qatar has been considering a truly sustainable transport system for mega sporting events where the population is expected to witness a surge in a short period of time. The presentation showed that Qatar has been operating under a strategic approach with a transport master plan so that by 2020, the country is expected to have an extensive national expressway network. The mega sporting events have helped in speeding up the development of Qatar’s transportation infrastructure, but the sustainability factor is still not very clear, as sustainability is not only a technological and economic issue that can be achieved by providing the necessary infrastructure, but also a political matter.

Ms. Hagar Eldidi and Mr. Andrew Petrovich from AUC presented the case of the transport challenges that were faced in the relocation of AUC campus, with a focus on sustainable commuting to the new campus. Their study showed that the new campus had a 68% reliance on AUC bus services and 30% private cars. The commuting distance significantly increased, a more costly commute to new campus compared to the old location, and thus the environmental impact is quite high, constituting 16% of AUCs carbon footprint. Six years after relocation, AUC is still a commuter campus; the New Cairo transportation situation is unsustainable, and there exists a dilemma for the administration between the choices of raising parking fees versus bus fees; that is, moving people versus moving vehicles. They concluded by stressing that the public needs to be understood in order to build public transportation systems that are sustainable.

Dr. Cynthia Myntti from AUB's Neighborhood Initiative and Dr. Mounir Mabsout gave a presentation on "Improving Walkability in Beirut: Lessons from the Jeanne d’Arc Street Case." Their pilot project “Jeanne d’Arc Street; A Model Pedestrian-Friendly Street for all of Beirut” aimed to create a model pedestrian street, in one of the most pedestrian unfriendly cities in the world. The research included a documentary film of someone using a wheelchair while navigating the street, in-depth interviews, body mapping of obstructions, and traffic analysis. The final design, based on multiple charrettes with technical focal points in the Beirut municipality, local urban and landscape design experts, wheelchair users and experts in urban design, suggests a widened sidewalk, removal of parking lanes, a gutter for rainwater run-off, and elevated junctions that will slow down vehicle commuters to make the road safer. The project was approved by the municipal council, and is awaiting approval of the governor for implementation. The benefits of such a project are economical, social, health, and above all it helps build a stronger community.
Mr. Johnny Ojeil, Director of Arup, concluded the presentations by paving the way for a roundtable discussion. He laid out the transportation system in Beirut and focused on the challenges that need to be tackled. He highlighted the byproducts of transportation systems such as health, climate change, and economic growth and the importance of integrated transport planning for better social inclusion. Mr. Ojeil concluded by stating that Beirut used to have a multi-model transport system in the 1950s, indicating that this is possible again in our city.

The day concluded with a roundtable discussion on the Lebanese Sustainable Transportation Policies, chaired by Mr. Ojeil. The roundtable included representatives from different stakeholders including the public, private, academic sectors as well as civil society. The discussion started with an overview of the current strategy of the transport sector by the representative of the Lebanese Ministry of Public Works and Transportation. The main topics that followed included availability of the strategy to the public, the issue of class and social divisions, the counteractive policies, updated census for representative models, decentralization and advocacy.

The final recommendations of the discussion included:

- Improving policy transparency
- Proposition to create an advocacy group involving practitioners to act as a driving force to influence decision makers to move towards sustainable transportation
- The need for better stakeholder engagement in the policy process
- The need for institutional strengthening
- The need to create an integrated transport unit
- Establishing a committee on the ministerial level to look at the institutional frameworks from a holistic view
- Awareness campaigns
- Mapping of decision makers
- Transport data collection and database development
- Monitoring and measuring selected transport parameters
- Encouraging the role of municipalities for better transportation