

For Immediate Release



AUB air pollution study: Almost all Beirutis exposed to high levels of air pollution

Beirut, Lebanon- 09/05/2011 - About 93 percent of Beirut's population is being exposed to high levels of air pollution. The overall cost of air pollution to health could be exceeding \$10 million a year.

These were some of the alarming data that researchers revealed during a seminar held on May 6, 2011 at the American University of Beirut.

Presenting the findings of a joint, two-year study conducted by AUB and the University Saint Joseph in collaboration with the National Center for Scientific Research (CNRS) and the financial support of the Ile de France municipality, the researchers warned that not only are air pollution levels higher than the acceptable WHO standards, but they are increasing throughout the years.

Professors Jocelyne Gerard from USJ and Najat Saliba from AUB highlighted the main findings of the study after introductory notes by CNRS's George Tohme; Beirut Municipality Vice President Nadim Abou Rizk,; Mazen Hussein, the director of the Ozone Unit at the Environment Ministry; AUB Associate Provost Nesreen Ghaddar; and USJ's head of the geography department.

The study, which was conducted from 2008 to 2010, involved collecting air samples from monitoring stations all around Beirut: in the pinewoods area, in the College Protestant Francais, at AUB, at USJ on Huvelin Street.

The average annual concentration of nitrogen dioxide, one of the harmful air pollutants, reached 58 micrograms per cubic meter in 2010, whereas the maximum allowable concentration according to WHO is 40 micrograms per cubic meter.

As for particulate matter, created by dusty streets, use of brakes and wear and tear of tires as well as incomplete combustion of fuel, these too exceed the limits by at least 100 percent.

Modes of transport were identified as the biggest contributors, exacerbated by all-day traffic jams and 100,000 additional new and used cars being sold in the country every year. In fact, Lebanon has more cars per capita than Turkey and almost the same number as Japan, although both countries are significantly bigger and more populous. As a result, each passenger car emits 1.6 tons per year. These emissions can only be offset by planting a minimum of 160 trees that are at least two years old.

Inadequate urban management that includes the construction of high buildings along narrow streets thus creating a so-called "canyon street" also helped trap air pollutants within city streets.

Professor Najat Saliba proposed a series of potential solutions—a mix of quick fixes and long-term strategies. Among her suggestions were: imposing staggered working hours; organizing the public transport sector; encouraging car pooling and bicycle use; using alternative fuels and eco-vehicles; and building electric trains and bus lines.

Pulmonologist Marie-Louise Coussa-Koniski from Rizk Hospital warned that the number of cases of asthma, rhino-sinusitis, and interstitial lung disease have been rising significantly over the past decade. For instance, the prevalence of asthma in Lebanon is at least 50 percent higher than that in Europe or the United States. However, studies have shown that if air pollution is reduced to guideline levels, then the number of asthma cases falls by 70 percent and bronchitis cases are cut in half.

Other factors that are exposing the population to high levels of air pollution include the absence of smoking bans in public places and the excessive use of fireworks which can cause safety limits to be exceeded 200-fold, said Dr. Coussa-Koniski.

Economist Jad Chaaban, from AUB's Faculty of Agricultural and Food Sciences, reviewed a 2001 study that put a dollar value to air pollution in Lebanon. Chaaban said that while the 2001 study showed that Lebanon is losing \$10 million annually in health bills and loss of productivity due to air pollution, the country can gain up to \$16 million and save up to \$3.2 million in hospital visits if it would reduce its particulate matter by only 10 micrograms per cubic meter.

Chaaban suggested that more studies be conducted and also that the Beirut municipality be empowered by changing municipal election laws to allow Beirut residents to vote in the district where they reside, instead of where they originate from, as the current law stipulates. Chaaban argued that 50 percent of Beirut's residents currently do not vote in the city.

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Note to Editors

About AUB

Founded in 1866, the American University of Beirut bases its educational philosophy, standards, and practices on the American liberal arts model of higher education. A teaching-centered research university, AUB has more than 600 full-time faculty members and a student body of more than 7,000 students. AUB currently offers more than 100 programs leading to the bachelor's, master's, MD, and PhD degrees. It provides medical education and training to students from throughout the region at its Medical Center that includes a full service 420-bed hospital.

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