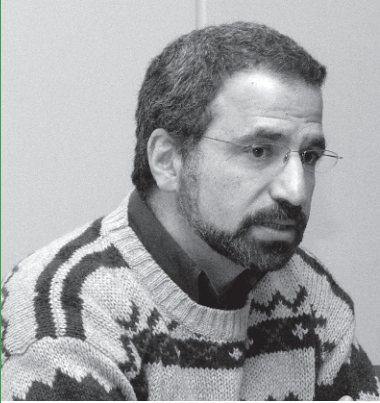


Climate Change and Environment in the Arab World

June 2008



Nadim Farajalla

Nadim Farajalla, PhD in Environmental Engineering, is Associate Professor of Hydrology and Water Resources at AUB. His research focus is on watershed management, fate and transport of contaminants in surface and ground water, and application of GIS and remote sensing technology in water science.

The Issam Fares Institute for Public Policy and International Affairs (IFI) at the American University of Beirut (AUB) was inaugurated in 2006 to harness the policy-related research of AUB's internationally respected faculty and other scholars, in order to contribute positively to Arab policy-making and international relations. IFI is a neutral, dynamic, civil, and open space that brings together people representing all viewpoints in society. It aims to: raise the quality of public policy-related debate and decision-making in the Arab World and abroad; enhance the Arab World's input into international affairs; and, enrich the quality of interaction among scholars, officials and civil society actors in the Middle East and abroad.

Research and Policy Memo #1

Researchers, civil society and government must combine forces to offset climate change's expected impact on multiple sectors in the Arab World

Climate change will impact on at least seven distinct sectors throughout the Middle East, and a coalition of actors in society must work together quickly to minimize the negative consequences that might occur. This was the main theme of a recent lecture by Dr. Nadim Farajalla of the American University of Beirut (AUB), faculty director of the new Research and Policy Forum on Climate Change and the Environment in the Arab World.

The climate change forum is one of several new programs launched this year by AUB's Issam Fares Institute for Public Policy and International Affairs (IFI). Farajalla's presentation inaugurated a Spring lecture series on climate change and the Arab world by seven different scholars, activists and officials. All the lectures are accessible on the IFI website.

The impact of climate change will be felt in seven distinct sectors, he said: health, agriculture and food supply, forests, ecosystems and biodiversity, coastal zones, water resources, and energy production and use.

Even countries with a small carbon footprint such as Lebanon must create long-term incentives for businesses and individuals to become wary of their impact on the environment, he suggested.

An Assistant Professor of Hydrology and Water Resources at AUB, Farajalla singled out two critical needs in the region: political will and grassroots activism for environmental legislation, and the urgency for integrated action among academics, activists, and policy-makers.

Dr. Berj Hatjian, Director General of Lebanon's Ministry of Environment, concurred. He commented in the open discussion after the lecture that academic-government interaction is critical to achieve good policies, and to strengthen the political will to move in this direction. He proposed the creation of a working group – made up of an economist, an energy engineer, an agricultural engineer, and a health expert—to work through IFI and directly with ministers in government.

"Lebanon will suffer immensely from climate change," said Farajalla, noting that the impact on the energy sector may prove to be immense. Research on the effects of climate change on energy has been very preliminary in the Middle East, where changes can be expected in the infrastructure of energy production and distribution, even of alternative energy sources. Thus the region's oil-producing economies will be affected.

But climate change will affect Lebanon much more than Saudi Arabia, for example, "because we are a fringe ecosystem, around the rim of the Mediterranean," he said. With a small carbon footprint—as compared to China, the U.S., and Europe—action is best geared to adaptation rather than mitigation.

“ Let's put it as part of our curriculum at university, then work with the government to generate political will. ”

The Research and Policy Forum on Climate Change and Environment in the Arab World provides a mechanism that brings together AUB professors, other academics and researchers, civil society, the private sector and policymakers. By promoting close interaction between researchers and policymakers, it aims to help formulate more effective environmental policies in the Arab World, and to mitigate the impact of expected climate change scenarios and other environmental challenges. The AUB-IFI Climate Change Forum comprises lectures, research, publications, comprehensive regional databases of scholars and research, and regular workshops, seminars and conferences.

Rami G. Khouri *Director*
Dr. Nadim Farajalla *Faculty Director*
Sarine Karajerjian *Program Coordinator*

Integrating action

Local adaptation to climate change requires a joint initiative by four actors, said Farajalla: the government, NGOs, academia, and the technology and management sectors for adaptation management. These groups collectively can raise awareness on how to adapt to climate change, while creating environmental legislation to institutionalize relevant measures.

"The government needs to promote the use of less polluting and more energy-efficient technologies," said Farajalla, "through taxes, subsidies, incentives, and any agreement with private sector industries."

The role of NGOs is to act as watchdogs to ensure that policies are implemented on the ground. Academics must work both on the impact of climate change and how the public must react to it, what Farajalla called "both-sides-of-the-coin research."

Adaptation measures should include mobilizing financial and human public health resources; promoting eco-friendly interventions in coastal areas; altering agricultural cropping practices; and eco-management and conservation. Water management means improving the efficiency of water-use and planning for the use of alternative water sources. "What we are describing here is readily available, readily doable, and not very expensive," he said. "The faster we act, the better off we will be in the long run."

As for steering people towards adapting to climate change amidst their preoccupation with Lebanon's and the region's political turbulence, Farajalla pointed to the long-term savings that people and societies will enjoy by adopting environmentally-conscious policies.

"If you want people to act, you have to show them that their action will save them money, which includes creating long-term incentives for businesses and raising awareness at the grass-roots level." ■

“ Two critical needs in the region are political will for environmental legislation, and the urgency for integrated action among academics, activists, and policy-makers. ”

 Audio and video of the full lecture are available on the IFI website.



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Other lectures in the Research and Policy Forum on Climate Change and Environment in the Arab World Spring 2008 Lecture Series:

“Climate Change: Potential Impact on Water Resources in the Middle East and Adaptation Options”
Hamed Assaf, Assistant Professor at the Department of Civil and Environmental Engineering, AUB

“Climate Change and Carbon Emissions Trading in the Arab World: A Realistic Answer to the Dangers Ahead?” Jad Chaaban, Assistant Professor of Economics, AUB and Souheil Abboud, Middle East Regional Director, EcoSecurities Group plc.

“Post- Kyoto Policies: How Can Arab Countries Meet Climate Change Challenges after 2012?”
Wael Hmaidan, Executive Director of IndyAct - The League of Independent Activists

“Are Changes in Insect Patterns in the Lebanese Mountains Evidence of Climate Change?”
Nabil Nemer, Research Associate at the Faculty of Agricultural and Food Sciences, AUB

“Climate Change and the Arab World: Effects and Practical Implications for Water, Land, Food, and Urbanism” George J. Nasr, Assistant Professor at the Faculty of Engineering, Lebanese University

“Seawater Intrusion in Greater Beirut: Current Situation and Early Signs of Climate Change”
Mark Saadeh, Instructor of Oceanography, Geology Department, AUB

“The Tripod of Academia, Government and Private Sector: From Science to Policy Making”
Berj Hatjian, Director-General of the Directorate General of the Lebanese Ministry of Environment