

# Supporting Environmental Science in the Mideast



A water purification plant in Amman.  
(IDRC Photo: Peter Bennett)

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*Nadine Robitaille*

Canada's Carleton University is helping a Jordanian University get its newly-created graduate program in environmental science off the ground.

The English-language Yarmouk University, located in the city of Irbid in the north of Jordan near the Syrian and Israeli borders, boasts a respected undergraduate environmental science program. Until recently, however, students wishing to do post-graduate studies in the field had to look elsewhere.

But thanks to a collaboration between Carleton International and Canada's International Development Research Centre (IDRC), Yarmouk is now producing master's graduates in environmental science.

## **Building on a vision**

The cross-oceanic partnership began six years ago with Hussain Sadar, then a professor of environmental studies and Executive Director of the Impact Assessment Centre at Carleton University. In 1995, while attending a United Nations Educational, Scientific and Cultural Organization (UNESCO) conference on desertification, in Jordan, Yarmouk's Dean of Science approached Sadar with a proposition.

"He told me that Canada is, in his opinion, the world leader in environment," says Sadar. "He asked me what the chances were of helping them in capacity building at this university so that they can produce good professionals in environmental management, environmental protection, and particularly in environmental impact assessment."

Intrigued, Sadar approached Carleton's Vice President of Academics at the time, John ApSimon. It wasn't long before Yarmouk's President came to Canada to visit Carleton International, and find out more about the proposed project and Canada's environmental management policies.

Carleton International Director Ken McGillivray approached IDRC for assistance in setting up the master's program. The organization saw the potential for advancements in environmental development in Jordan and provided CAN\$350,000 to help Carleton International with the project.

### **Creating a relevant program**

Ironically, Carleton itself does not have a master's degree program in environmental management, which made the task of designing a program in a foreign country difficult. To address this problem, McGillivray came up with the idea that Carleton should set up a team consisting of qualified people in the field of environmental management and assessment. This team, says Sadar, took models from other Canadian universities that have a master's program in environmental management and created a proposal for Yarmouk that was relevant to Jordan's needs.

"We did not want to have a program which reflects Canada, because once those people graduate, they aren't going to come and work in Canada," Sadar says. "They have to be useful to the Jordanian society."

Dr. Peter Johnson, a retired professor of geography at Carleton, consulted a number of experienced people in both Jordan and Canada to produce an outline of the master's program for Yarmouk.

### **Opening doors for students**

In 1999 Yarmouk accepted its first students in the master's of environmental management program. As part of the project, Sadar travelled to Irbid for a month to teach a class in environmental assessment and management.

He says he was impressed with the work and the insight of the eight or nine students he taught. Sadar asked them to develop a workable plan for cleaning up the dirty — but otherwise beautiful — city of Irbid. After researching existing systems and available technology, reviewing budgets, meeting with the mayor and local environment officers, the students produced proposals that showed the students' high abilities. One was so good, says Sadar, that it was sent to IDRC as a proposal for a possible research project.

This past summer, four environmental management graduate students from Yarmouk came to Ottawa for three months to work alongside Carleton professors in their field and to see first-hand how Canada manages some of its environmental problems. Sadar himself selected the students — men and women — to come to Canada from the class he had taught at Yarmouk.

### **An exchange in Canada**

Active and retired professors in the fields of geography, radiology, chemistry, and civil engineering met with the students four days a week to teach them one-on-one how the environment is being managed in Canada and to help them with their thesis proposals.

One such participant was retired professor of nuclear chemistry, Don Wiles, who was partnered with a student of radiochemistry during her three-month stay. "She didn't know quite what to expect, I didn't know what quite to expect," says Wiles. "But I think it worked out pretty well."

Nancy Doubleday, a geography professor at Carleton who also took part in the project, says there were other benefits. "I think that my Canadian students benefited from the experience," she says. "They were able to learn about Jordan and different approaches to geography."

Sadar says he considers the program a great success. "With a small investment IDRC has created Jordanians who understand environment and understand how Canada is able to manage this large country in a reasonably good fashion."

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