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## NEW PRIORITIES: Food security, economic development, children and youth



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# Healthy food for the picking

**Kitchens and wild plants could be key to Lebanon's food security**

*By James Boothroyd*

**W**ater-parsnip, wild fig, pigweed: obscure yet edible wild plants like these are at the heart of research that is finding local solutions to the global problem of food security. The rediscovery of local foods is also breathing new life into hard-scrabble, rural Lebanese communities.

Take El Kwakh, for example. The 300 residents of this remote mountain village have witnessed an exodus over the years as family and friends have fled both the effects of the civil war that ended in 1991 and declining agriculture. When cheap food

began flooding into Lebanon, farming was no longer profitable.

Since 2005, however, a dozen women from poor households have been gathering daily in a communal "Healthy Kitchen" to prepare traditional dishes with local wild plants and other produce. Newly trained in commercial food preparation and marketing, the women act as nutrition ambassadors, selling their food in a Beirut market every Saturday and catering weddings and events. They have also turned an old house into a successful eco-lodge, featuring their delicious cuisine.

## **Research on food security**

This Healthy Kitchen was one of three established in different Lebanese villages by researchers based at the American University of Beirut. They are part of a food-security project funded by Canada's International Development Research Centre.

The lead researcher was Malek Batal, a Canadian who grew up in Beirut and studied nutrition at McGill University. On returning to Lebanon in 2002, Dr. Batal feared that the food security of many was being undermined by changes in diet, the estrangement of people from their local

*A woman from one of the Healthy Kitchens in Aarsal prepares traditional bread with dough made of a mixture of wheat, barley, corn and chickpea flour. This bread was promoted by the project as a better source of protein and other nutrients.*

environment and resources, and poverty.

“Food security,” according to the United Nations, “exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life.”

For IDRC, food security is rooted in healthy ecosystems that provide inhabitants with the nutrients and livelihoods they need to prosper.

### Local foods are best

During the first phase of his research Dr. Batal studied a cross-section of nearly 800 people in three Lebanese villages. He formed a multidisciplinary team that used an ecosystem-based approach, considering the social, economic, cultural and environmental factors that determine local diets and health. Economists and a nutritionist surveyed 500 villagers and discovered that nearly half were food insecure: 18 percent either skipped meals or didn't have enough food because they were poor; 32 percent ate food of inferior quality (bread without cheese, for instance) because they couldn't afford a healthier meal. The food-insecure lacked a balanced diet and the micronutrients they needed to stay healthy.

Ironically, the study also found that a number of men and women aged 40 to 60 had high blood-levels of cholesterol, triglycerides and glucose. Many were overweight or obese — risk factors for

diabetes and other chronic illnesses. These are the effects of **qualitative** food insecurity, says Dr. Batal. The cause: the transition of many Lebanese from a traditional, diverse Mediterranean diet to a more micronutrient-deficient Western diet, heavy on white flour, corn, sugar, and imported vegetable oils that are less beneficial than local olive oil.

The study also found that villagers who pick wild edible plants and have gardens enjoy greater food security and better health. The team assessed the nutritional value of more than 40 wild edible plants, documented traditional dishes that use them as ingredients, and proposed a list of healthy local foods that could improve diets at minimal cost. And, as important, they developed sustainable ways of promoting these foods: through an interactive database ([www.wildedibleplants.org](http://www.wildedibleplants.org)), culinary festivals, Healthy Kitchens and their nutrition ambassadors.



*Young members of one of the Healthy Kitchens identify and collect wild edible plants. Participants in the Healthy Kitchens undergo training in various aspects of food handling, preparation, marketing and accounting, as well as wild plant collection.*

### Nutrition and healthy ecosystems

The researchers' efforts have been met with enthusiasm.

“It was as if we vindicated what they thought about the local food, and their diet, culture, and traditions,” Dr. Batal recalls.

A second research phase, also supported by IDRC, began in March 2009. It focuses on the food consumption of individuals in the three villages, what the local environment can offer to support healthy people, and

the amount of energy required to obtain different foods — an important variable in assessing malnutrition.

To do this, Dr. Batal has mobilized a multidisciplinary team of Canadian and Lebanese researchers, including his fellow lead researcher, Salma Talhouk, professor of horticulture at AUB.

“This study could yield valuable information about the link between nutrition and healthy ecosystems: how they can be managed sustainably to produce enough food to feed people who depend on them and promote human health,” says Lamia El-Fattal, a senior program specialist based in IDRC's Cairo office.

Dr. Batal agrees. Now an associate professor and director of the nutrition program at the University of Ottawa, he says: “In Lebanon, we have shown that people are using their local environment to increase the quantity, and most importantly, the quality of their food.” 