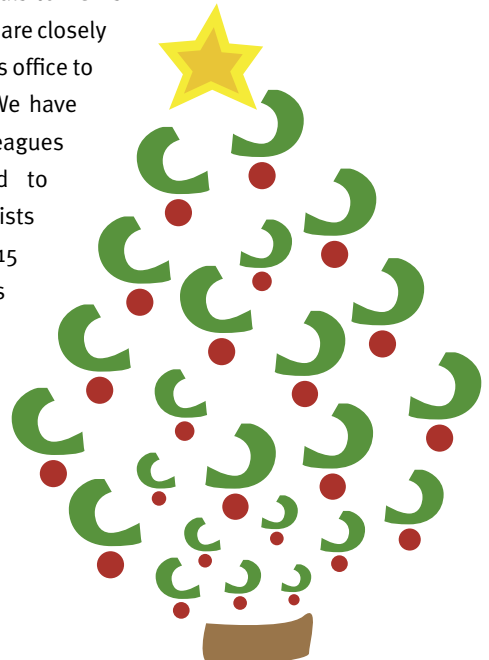


Editorial

A reflection on the year that has passed makes me feel positive about the future prospects of IBSAR. The plans that were on paper, the objectives and visions we elaborated, are slowly but surely becoming real! This year we have secured funds from two private investors to support our research activities; and, we have won consultancy bids to develop laws, frameworks, and guide future national directions of issues related to biodiversity conservation and use. On the “outside” we have secured the trust of society and have begun to be seen as a reference in the region. On the “inside” IBSAR members have developed mutual respect and appreciation of each others’ disciplines. This has led to a supportive atmosphere and professional commitment to the other and has overcome the barrier between academic “territories.” In our quest to build on existing departments and programs at AUB, IBSAR has successfully collaborated with AUB’s Environment and Sustainable Development Unit (ESDU) to extend the scope of its activities to sustainable rural development. It has received the enthusiastic support of AUB’s Office of University Publications to upgrade its image and is receiving constant guidance from AUB’s Computing and Networking Services (CNS) in order to further develop IBSAR’s website and online information. Our interest in initiating clinical trials has led us to submit two proposals to AUB’s Institutional Review Board (IRB) and we are closely working with AUB’s grants and contracts office to address issues related to patenting. We have also aroused interest among our colleagues in bioinformatics who have started to work with us. This year IBSAR consists of 23 faculty members representing 15 disciplines and 33 junior researchers (including RAs, graduate students, and student jobs). The possibilities of similar achievements for the coming year are very likely given the positive support we have received from AUB’s administration, from our colleagues, and from society as a whole.



Thesis Seminars

N. El Najjar (MS student, Major: Biology; Advisor: Dr. Hala Mohtaseb) gave a presentation titled “Comparative Antitumor Effects of Extracts from Selected Indigenous Plants of Lebanon Against Colon Cancer Using In Vitro and In Vivo Models.”

S. Bazzi (MS student, Major: Biology; Advisor: Dr. Rabih Talhouk) gave a presentation titled “An In Vitro Model to Study Bacterial-Mammary Epithelial Interaction.”

What Are the Provisions in Lebanon for the Implementation of Biosafety Policies Related GM Crops?

A UNEP/UNDP/MOE project—Discussed at the 3rd National Workshop
Much effort has been made since the launching of the National Biosafety Framework (NBF) project to promote information dissemination and awareness. However, the weakness of existing links between various sectors of society hinders progress on all fronts. I am not saying this out of despair, criticism, or bad intention. I am wondering with you whether standardized international approaches for public participation and systems for information exchange should not take into consideration regional/cultural perspectives to attain specific goals...or individuals—concerned or not—who have lost faith that such events can come up with tangible output...We have a long way to go...

The Cartagena Protocol on Biosafety (CPB) is the first legally-binding international treaty governing shipments and trade of GMO resulting from modern biotechnology. The treaty is part of the Convention on Biological Diversity (CBD). It was adopted by more than 130 countries after five years of negotiation. It entered into force September 11, 2003. The Protocol aims to contribute to the safe transfer, handling, and use of Living Modified Organisms (LMOs) resulting from modern biotechnology that may have adverse effects on conservation and sustainable use of biological diversity. It also takes into account risks to human health and their socio-economic impacts, specifically focusing on transboundary movements.

We are, as Lebanese citizens, all equally affected by opinions shared and decisions taken through public participation events on Genetically Modified Organisms (GMOs); this is how Dr. S.N. Talhouk, director of IBSAR, started her opening speech at a one day workshop held December 17, 2004, at Mövenpick Hotel and Resort in Beirut to discuss provisions for the implementation of key components of the Cartagena Protocol on Biosafety (CPB).

The workshop was held under the auspices of the United Nations Environment Programme (UNEP), the Ministry of Environment (MOE), and the United Nations for Development Programme (UNDP). It gathered high profile individuals representing various ministries, and private and international organizations. The objectives of the third national workshop were to give an

WHERE ARE WE NOW?

- Preparing the Biosafety Clearing House to be hosted at the Ministry of Environment website for public participation mechanisms and information dissemination
- Preparing the fourth issue of the project newsletter. Previous issues are available online at www.undp.org.lb/programme/environment/newsletters/index.html
- Preparing the awareness material on GMOs and NBFs and worldwide regulations
- Planning for five workshops on risk assessment and risk management as well as various seminars on GMOs and the Cratagena Protocol on Biosafety. One will be held at AUB for all faculty members and students. If interested check www.undp.org.lb/events/index.html
- Moderating and managing the project list-serv

*If you would like to contribute to the project newsletter NBFP@Lebanon and join the list-serv, send your article (not exceeding 400 words) and a note to Dr. Elsa J. Sattout at es13@aub.edu.lb
To know more about our project activities, check project fact sheets online at www.undp.org.lb/programme/environment/factsheets/index.html*

overview of the national status related to the control of transboundary movements, regulatory regimes, and administrative measures for import and export, to identify the potential role of state agencies and other institutions in the implementation of the CPB, to identify existing systems to integrate the key elements of the CPB, and to come up with organizational chart options for the implementation of relevant provisions of the CPB.

In her opening speech session Dr. Salma N. Talhouk, director of IBSAR, thanked the IBSAR project team members and recognized the joint effort made by IBSAR-AUB, the MOE, and the UNDP to promote participation of key people and ensure collaboration of keynote speakers. The UNDP opening talk was given by Mr. Edgard Chehab, UNDP programme manager, who underpinned the importance of involving the public in the development of the NBF. Ms. Klaimi, the Biosafety Focal Point at the MOE, gave an overview of the history of the Lebanese government’s role in the preparation, ratification, and signature of the CPB.

The key components of the NBFs include

1. a national policy on biosafety
2. a regulatory regime for biosafety
3. a system for public participation
4. mechanisms to handle notifications/requests for approval
5. mechanisms for inspection, monitoring, and enforcement.

The workshop agenda was divided into four different sessions. The first session gave an overview of the CPB and updates on project activities. The presentations gave a clear picture about future programs for building the quality chain at the Ministry of

Economy and Trade (MOET); on the inspection mechanism for import and export of agricultural products and plant quarantines, on challenges facing agro-food export, and the importance of a common Arab biosafety vision. Presentations were given respectively by Dr. Elsa. J. Sattout, national project coordinator, IBSAR-AUB; Mr. Ali Berro, director of the quality programme, MOET; Mr. Charles Zarzour, chief of agriculture import and export service, Ministry of Agriculture; and, Mr. Rabih Sabra, head of the agriculture and agro-industries department, Chamber of Commerce, Industry and Agriculture in Beirut (CCIAB).

The second session addressed the UNEP toolkit module prepared for administrative measures and regulatory measures. The presentations were given by Dr. Dima Jamali and Maître Walid Nasser, both of AUB and IBSAR expert team members. Dr. Jamali opened her presentation pinpointing the importance of the administrative system as a critical component and a central pillar of any NBF. Maître Nasser gave a summary of the CPB provisions and recalled the survey results presented at the second national workshop regarding the existing regulatory measures.

The third session addressed participants' opinions on regulatory measures and opened the ground for the selection of the National Competent Authority (NCA) for the implementation of the provisions of the CPB. Participants discussed the constitution of the National Coordinating Committee for approval by MOE and implementation. Opinions were given and suggestions were registered to proceed with drafting the NBF for Lebanon and to address the necessary provisions. Once again, as in previous workshops, concerns were raised regarding the region's importance as a center of origin for wild crops, and the importance of considering product quality in promoting Lebanese agri-food products in worldwide markets.

The fourth session addressed the integration of GMOs in the food safety law prepared by MOET in collaboration with a group of experts from various universities, NGOs, consumers, and other international and national organizations.

DR. ELSA J. SATTOUT

Drafting the NBF will start in a short while!!! We will keep you posted.

News

IBSAR Hosts German Artist

www.albrightknox.org/acquisitions/acq_2002/Esser.html

“Born in Stuttgart, Germany, in 1967, Esser studied photography with Bernd and Hilla Becher in Dusseldorf where he now lives and works. The Becher's instructional focus on form and detail was influential in the development of Esser's approach to landscape photography. His large-scale images of empty landscapes and deserted cities often have a compelling abstract quality, coupled with an



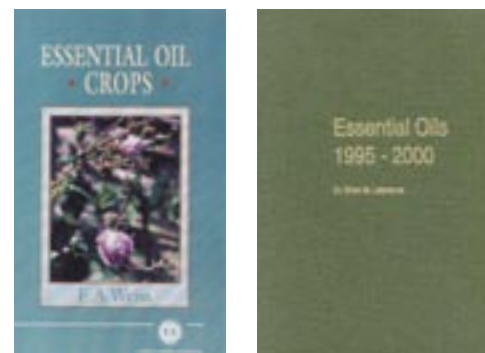
overwhelming sense of silence and stillness. His photographs are on the scale of grand history and landscape painting of the past, but also evoke the saving and sharing of memories through the genre of tourist postcards.”

Mr. Esser visited Lebanon last December and IBSAR's field coordinator Mr. Khaled Slim guided him to important and forgotten places in Lebanon.

New Addition to IBSAR Library

The following books are now available at the IBSAR library (FAFS, Room 408):

- E.A. Weiss. 1997. *ESSENTIAL OIL CROPS*. CAB international. 600 pages.
- B. Lawrence. 2003. *ESSENTIAL OILS 1995-2000*. Allured Publishing Corporation. 389 pages.



Website Recommended by Dr. Nader Kabbani

www.nature.com/cgi-taf/DynaPage.taf?file=/nbt/journal/v22/n12s/index.html

This site includes case studies on health biotechnology innovation in developing countries that presents findings from a three-year study of the biotechnology sectors of seven countries (Brazil, China, Cuba, Egypt, India, South Africa, and South Korea); it is the brainchild of a group of researchers at the Canadian Program on Genomic and Global Health at the University of Toronto Joint Centre for Bioethics. For each country, data and information were gathered from interviews with local experts, background documents, scientific literature, and patent databases. The study sought to highlight biotechnology successes in these countries and the means by which these successes were achieved, with a view to reproducing them more widely in other parts of the developing world. (Articles: Introduction: Promoting Global Health Through Biotechnology; The Scientific Muscle of Brazil's Health Biotechnology; Health Biotechnology in China—Reawakening of a Giant; Cuba—Innovation Through Synergy; The Emergence of Egyptian Biotechnology from Generics; Indian Biotechnology—Rapidly Evolving and Industry-Led; South Africa—Blazing a Trail for African Biotechnology; South Korean Biotechnology — A Rising Industrial and Scientific Powerhouse; Conclusions: Promoting Biotechnology Innovation in Developing Countries)

IBSAR Visiting Member

Dr. Shalal M. Hussain Al Ataby was a visiting scientist member during the AUB fall semester 2004. Dr. Al Ataby (PhD, Cell Physiology) is working on plant extracts to identify anti-cancer activity at the Iraq Center for Cancer and Medical Genetics. Dr. Al Ataby has worked in this center as assistant director since 2001, and his field of work covered mainly plant extracts and their effects on cancer cell lines. He has



Dr. Shalal M. Hussain Al Ataby

conducted research on the black seed and the *Withania somnifera* DUN, a plant original to India and known in folk medicine to have anti-cancer effects as well as 20 other different attributes, such as anti-inflammatory and anti-stress properties. This plant, which was administered as a gum by chewing the whole plant in India, was recently introduced to the market as a preventive drug for cancer.

Dr. Al Ataby spent 3 months in Lebanon with IBSAR to test the effects of the plant extract on different cancer cell lines. During his stay he has also profited from the different services provided by AUB by visiting and using AUB's main facilities, libraries, and Academic Computing Center.

Summary on the Iraq Center for Cancer and Medical Genetics

The Iraq Center for Cancer and Medical Genetics was established in 1995 as the first advanced research center to deal with research on cancer and genetic diseases, and to provide some diagnostic services for patients with such diseases.

MAIN OBJECTIVES

- Conduct advanced scientific research on cancer and genetic disorders from several aspects
- Integrate new technologies for cancer and genetic disorders research and treatment, and for genetic engineering
- Introduce new therapies such as immunotherapy and gene-therapy for cancer and genetic diseases
- Test the ability of local plant extracts to prevent cancer cell growth
- Conduct genetic diagnosis for local community
- Offer genetic counseling for families
- Provide medical advice to the community
- Conduct different blood tests for cancer and genetic disorders diagnosis and follow-up
- Produce awareness material such as brochures, pamphlets, and flyers about preventing cancer and genetic disorders
- Develop close collaborations between different research institutions, NGOs, universities
- Conduct workshops, conferences, round table discussions, meetings, and TV and radio sessions to raise awareness about cancer and genetic disorders

MAIN ACTIVITIES AND OUTCOMES

- For the last four years, four research patents for detecting cancer and three other patents in process
- The graduation of 43 students with an MS or a PhD, and 53 graduate students enrolled in MS and PhD programs
- The providing of diagnostic and clinical services for patients and for people exposed to polluted areas

- The creation of new groups of animal and human cancer cell lines
- The publication of dozens of scientific papers and articles
- The integration of new techniques such as chromosome testing in blood and bone marrow, and fetus testing for genetic disorders
- The completion of 173 scientific research studies
- The conducting of 24 scientific meetings to discuss scientific problems
- The production of laboratory kits for chromosomal analysis

FUNDING

The center is funded directly by the Iraq Ministry of Higher Education and Scientific Research.

Fundraising

Funds Received

IBSAR-ESDU partnership receives funding from the International Development Research Centre (IDRC). Dr. Malek Batal submitted a proposal titled "Wild Edible Plants: Promoting Dietary Diversity in Poor Communities of Lebanon" to IDRC with the help of ESDU director Dr. Shadi Hamadeh, who has established a strong relationship with IDRC. Dr. Batal was recently notified that the project has been approved for funding and work will start immediately. (project team members: M. Batal, S. Hamadeh, N. Hwalla, D. Jamali, N. Kabbani, and S. Talhouk; grant amount: 200,000 Canadian dollars over two years)

Publications from IBSAR

N. El Najjar, MS thesis: "Comparative Antitumor Effects of Extracts from Selected Indigenous Plants of Lebanon Against Colon Cancer Using In Vitro and In Vivo Model"

S. Bazzi, MS thesis: "An In Vitro Model to Study Bacterial-Mammary Epithelial Interaction"

CALVIN AND HOBBS



PROVIDED BY DR. JALA MAKHZOUMI

In So Many Words

Nobel Peace Laureate • By Anna Lappé and Frances Moore Lappé

The genius of Wangari Maathai

Several prominent Norwegians have questioned the Nobel Committee for awarding the Nobel Peace Prize to Wangari Maathai. Why honor environmental activism in an era when war, terrorism and nuclear proliferation are even more urgent problems?

What they miss is Dr. Maathai's special genius.

The first time we met Maathai was four years ago in an airy greenhouse beneath towering jacaranda trees on the outskirts of Nairobi. At the time, the Green Belt Movement she had founded nearly 25 years earlier was still struggling against the ruthless regime of President Daniel arap Moi.

Maathai planted seven trees on Earth Day in 1977 to honor Kenyan women environmental leaders. Then, recognizing that deforestation could only be reversed if village women throughout her country became tree planters themselves, she launched the Green Belt Movement. Government foresters laughed at her idea of enlisting villagers. It took trained foresters to plant trees, they told her.

Because Maathai didn't listen, today Kenya has 30 million more trees, all planted by village women. Maathai's genius is in recognizing the interrelation of local and global problems, and the fact that they can only be addressed when citizens find the voice and courage to act. Maathai saw in the Green Belt Movement both a good in itself, and a way in which women could discover they were not power-

less in the face of autocratic husbands, village chiefs and a ruthless president. Through creating their own tree nurseries — at least 6,000 throughout Kenya — and planting trees, women began to control the supply of their own firewood, an enormous power shift that also freed up time for other pursuits.

Then, through popular education, village women — who had watched public forests be used by the Moi regime to grant political favors — began to see forests differently, as something they, as citizens, had a claim to.

Today Kenya has 30 million more trees, all planted by village women.

Through the Green Belt Movement, village women also came to see that a narrow focus on export commodities, such as coffee, at the expense of environmentally appropriate food crops, was an inheritance of colonialism reinforced by IMF policies.

That, too, they could change.

Through a village food-security campaign, Green Belt members are learning to re-establish indigenous crops using organic methods and to reintroduce kitchen gardens — a skill many had lost in the wake of government-promoted export-oriented agriculture.

Over the years, Maathai and members of the Movement have been jailed and even beaten for their protests of government anti-environment actions. One of the movement's organic-farming educators described to us how he was almost arrested for growing sustainable agriculture. "The government, it turned out, had lucrative contracts with major chemical agriculture companies; the teachers' education

posed a serious threat. Maathai has also become a leader in international debt-relief efforts. By the time we traveled to Kenya in 2000, the Green Belt Movement had grown into a major pro-democracy force.

In 2002, Maathai decided to run for a seat in Parliament. She beat her opponent 50 to 1. When we were told, danced in the streets of Nairobi for joy. A few weeks later, when President arap Moi stepped down after holding power for more than two decades, Maathai was appointed deputy minister of the environment.

We last saw Maathai in May this year at a gathering in New York. She said she was helping write a new constitution for Kenya. "We are working on a Bill of Rights, only ours," she said, with her irreplaceable grin, "will include rights not only for human beings, but for animals and the environment."

We revisited our time in Kenya where we saw many village women wearing a Green Belt Movement T-shirt. The T-shirt says simply, "As for me, I've made a choice." In selecting Dr. Maathai, perhaps the Nobel Committee wants us to recognize that the real hope for peace, both with each other and with the earth itself, lies in the choices — individual and collective — of empowered citizens. Bringing this insight to life is Wangari Maathai's genius.

Anna Lappé is a Food and Society Policy Fellow, a national program of the W.K. Kellogg Foundation to enhance communication about food and agriculture, of Anna and Frances Moore Lappé, are co-authors of "Hope's Edge: The Next Five or Six Small Plans."

Send your news, articles, and editorial comments to M. Daouk at me11@aub.edu.lb
Submission deadline is the 20th of each month.