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“Going Green” is a Moral Imperative At Bar-Ilan University in Israel

by Mark Medin

As Israel celebrates its 60th anniversary, it can take great pride in its many environmental achievements. It is one of the few countries in the world with more trees today than a century ago. Israel is a leader in combating desertification, which contributes to the loss of biodiversity and increases the risk of global warming. The future strength of Israel will depend not only on security issues, but also on making sure that the coming generations of Israelis live in a clean environment. For this vision to



become a reality, Israel's higher education institutions must play a leading role in research and development efforts to save energy, reduce plant diseases that contaminate the environment, and promote "green" wastewater treatment, as well as advocating for strong laws to protect the environment. One such Israeli university working in all of these areas is Bar-Ilan University (BIU).

In a proactive approach addressing the threats of global warming and ecological challenges in Israel and the world at large, BIU has committed to hiring 50 new experimental scientists over the next five years, most of who will be dedicated to improving the environment in Israel and worldwide. From this environmental scientific hub will radiate an increasing number of doctoral students who will specialize in the field, enabling the university to train the new generations of "clean-tech."

This decision is an outgrowth of the university Board's mandate to make BIU a leading university in environmental research and education. A major first step is making the BIU campus environmentally friendly. A prime example of BIU taking a concrete step to address this issue is ensuring that the new windows in the new Gonda (Goldschmied) Nanomedicine Triplex are coated with a special layer of nano-particles, invented at BIU, that makes them "self-cleaning" and thus saves the use of precious water that would otherwise be needed to wash them.

"Going green is not just a slogan at BIU – it is a moral imperative," says BIU President Moshe Kaveh, who has published numerous articles on protecting the earth's environment within the context of the Bible and *Halacha*.

BIU is doing remarkable work to protect the environment – from futuristic digital solutions to save energy to making Israel's "Napa Valley" eco-friendly, from finding

Biblical sources for preserving the environment to solving the problem of global warming by modeling climate change in the oceans.

Out-of-the-Box Solutions

Professors at BIU are seeking out-of-the-box solutions to environmental challenges. Among them is BIU Information Scientist Dr. Asher Idan, who is among a group of scientists researching ways to save energy through digital innovations.

By 2010, Dr. Idan envisions the age of Artificial Intelligence (AI), when many of our connections will be made automatically via internet. "We will save much more energy and be more productive. AI will make materials much more cost-efficient, better able to harmonize with supply and demand. For instance, consumption of food at hotels will be better organized and there will be much less waste," he said.

According to Idan, by 2015-20 we will reach the Nano-tech, Bio-tech, Neuro-tech age. The merging of Nano-tech and Bio-tech will enable us to download materials, such as a pair of jeans or a dish of ice cream, on our "material printers," just as today we download music or videos. Dr. Idan estimates that use of Nano-tech and Bio-tech will bring about an 80% saving in energy.

Neuro-tech exists now, said Dr. Idan. "Soon, we will be able to have a chip inserted into our brains, and drive a car just by thinking, or communicate with other people with similar chips as if we are mind-reading, thereby saving a great deal of energy."



Another BIU scientist, Prof. Yigal Cohen, is working with his team to make Israel's "Napa Valley" eco-friendly. Prof. Cohen, of the Mina and Everard Goodman Faculty of Life Sciences, and his team have devoted decades of research to the biology of plant diseases in an effort to find ways to reduce the release of contaminants into the environment and develop eco-friendly alternatives to hazardous materials.

Prof. Cohen, a winner of the Israel Prize for Agricultural Research, has developed with other BIU professors a groundbreaking no-drain system of irrigation, in which vines are grown, detached from the ground on a peat and perlite soil substitute, inside special 100-liter containers. In this way, they are protected from soil-borne disease and do not contaminate

the water table.

The Causes of Climate Change

While the debate over the causes of climate change grows increasingly heated, at Bar-Ilan University scientists are taking a cool accounting of the situation. They are modeling how climate change may affect "weather" in the murky depths of the

Mediterranean Sea. Prof. Steve Brenner, an oceanographer in the Department of Geography and Environment, is trying to clarify how water circulation and climate are affected by human activity, as well as wider global forces.



In research funded by the Israel Science Foundation, Professor Brenner is investigating the potential impact of global climate change on the Mediterranean basin. “Climate change may add to existing problems of desertification, water scarcity, and food production, while also introducing new threats to human health, ecosystems, and national economies of North Africa and eastern Mediterranean countries,” said Prof. Brenner.

During his group’s study on how human activity affects coastal ecosystems in the Mediterranean, Brenner and his team found that the building of a dam in the Nile River has deprived the eastern Mediterranean of a major source of fresh water and increased the sea’s salinity. “This could potentially lead to significant changes in the sea water circulation, and affect circulation patterns in the Atlantic as well,” said Prof. Brenner.

“If we can improve our understanding of the forces acting on the Mediterranean, this will help us make smarter decisions about how to balance our need for growth and development with the need to preserve our natural resources. At the same time, it will help us create ecologically sound models for the resolution of environmental conflicts,” added Prof. Brenner.

Addressing the Issue of Jewish Environmental Ethics

Along with exploring scientific options to protect the environment, several faculty members at Bar-Ilan’s Jewish Studies Department are addressing the issue of Jewish environmental ethics in their own milieu.

Leading the way in this effort is Prof. Daniel Sperber, president of the Ludwig and Erica Jesselson Institute for Advanced Torah Studies and the Milan Roven Professor of Talmudic Studies at BIU. In forums such as the modern Orthodox *Edah* Journal, he calls upon fellow Jews to take an active stance to safeguard the earth – our only home.

Sperber stresses the importance of promoting ecological ideology to encompass socially responsible investment. He belongs to 3iG: International Interfaith Investment Group, which aims to strengthen investment in companies trying to improve the environment, including those involved with alternative energy and water purification. He is also a member of the Alliance of Religions and Conservation, where he promotes Judaism and its view of ecology to his colleagues who include Buddhists, Hindus, Sikhs, Shintoists, Moslems, and Christians.

“We must think ahead precisely because there is a mandate of *horashah* (bequeathing to coming generations). Because it is not ours, we do not have the right to decline to pass it on. Indeed, we must not spoil the world for our grandchildren,” said Sperber, urging us to take our cue from the pages of Jewish tradition and to wake up and tend to our environment before it’s too late.

With Prof. Sperber’s words in mind, the University has established an Environmental Unit to introduce ways to keep the campus environmentally “green.” In a short time, the University’s paper recycling sacks on campus have gone from 40 to 170. There are now recycling sacks on every floor of every building, and Bar-Ilan sends approximately two tons of paper per week for recycling.

In addition, the BIU Law School faculty is defending the environment in theory and practice. Dr. Oren Perez, of the Yaakov Herzog Faculty of Law, a specialist in Environmental Law, is involved in a number of research projects that explore unique environmental policy-making and enforcement mechanisms.

“The design and implementation of innovative environmental policies are crucial to meeting the challenges of the 21st century ecological crisis. Effective regulation is essential for the preservation of the Earth’s delicate ecosystems, especially in a country as small, populous and industrialized as Israel,” said Dr. Perez, who pioneered the establishment of the Bar-Ilan Faculty of Law Environmental Clinic (www.envclinic.org).

The Clinic, manned by law students, combines free legal and research assistance to individuals and organizations in resolving environmental problems. Its wide and varied projects include a position paper presented to the Knesset on health risks to petrol station employees, a study of the regulatory framework governing the issuance of permits to discharge industrial sewage to rivers, and an educational project that introduces children in an ultra-Orthodox school to environmental issues.

A prime example of Bar-Ilan’s Law School taking action to drive environmental and social change is now taking place in the faculty’s advocacy work on behalf of the ultra-Orthodox community of Bnei Brak.

Two years ago, attorney Hanan Mandel and the students he supervises in the BIU Faculty of Law Environmental Clinic prepared a report that presented Bnei Brak as a trial balloon for assessing environmental hazards caused by having a central “bus terminal” in densely populated neighborhood. Hundreds of residents suffer from exhaust fumes and noise generated by the over 700 buses frequenting Bnei Brak’s streets every day.

Leading the battle to move these bus stations to a more suitable location, the Clinic turned directly to the Ministry of Interior. “Hopefully, this will result in new standards for placing transportation terminals near densely populated areas,” says Mandel, a PhD law candidate who also teaches in the Conflict Resolution program on campus.

“In the past two years, we have seen a change in attitude throughout the Haredi sector,” affirms Mandel, noting that Bar-Ilan’s Environmental Law Clinic is the first to deal with legal environmental issues in the ultra-Orthodox community. With its unique *Torah* and science orientation, Bar-Ilan is especially equipped to deal with this niche. Mandel added, “As a religious person, it’s important for me to show that environmental activism and Judaism are compatible.”

Thriving in an Environmentally-responsible Atmosphere

As the Executive Vice President and CEO of the American Friends of Bar-Ilan University in Israel, it makes me proud to be heading an organization that supports this University’s outstanding work to protect our environment. It makes me even prouder to see how Bar-Ilan students are facing up to the “green” challenge through special advocacy programs aimed at involving youth.

On the Bar-Ilan campus, there are a growing number of students joining Green Course, the largest environmental volunteer organization in Israel. The group organizes “Green Days” on campus and sets up information booths showcasing various “green” issues. They initiated a publicity campaign to encourage other students to save paper and minimize waste by doing two-sided photocopying. In addition, this group introduced a plastic bottle and can recycling program on campus.

Over the coming decades, Bar-Ilan professors, students and administrators will continue to play an integral role in helping the country thrive in an environmentally-responsible atmosphere. For years to come, Bar-Ilan will be an incubator of ideas to find new and innovative ways to offer hope for an ecologically sound future that will provide a clean environment for our children and grandchildren.

To learn more about BIU’s ecological work or to get a complimentary special environmental issue of *BIU Today: The Magazine of Bar-Ilan University*, please email your request to Mark.medin@afbiu.org or call 212-906-3901.

Mark Medin is the new Executive Vice-President and CEO of the American Friends of Bar-Ilan University in Israel. Mark comes to Bar-Ilan from UJA-Federation of New York, where he was Executive Director of its Philanthropic Group. Prior to this, he was for many years active in the Anti-Defamation League, serving in a variety of senior executive positions.
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“Focus the Nation”

by Matt Lehman

When students from Hillel on campuses across the country travel to New Orleans each year to rebuild houses destroyed by Hurricane Katrina, they learn about the devastating effects of climate change on the natural barriers protecting the city. When students from Hillel spend a week on an organic farm as part of an alternative break trip, they learn about the importance of sustainable farming and how it promotes *tzedek* (justice) within as well as outside the Jewish community. When students are on campus, they seek equally compelling ways to pursue social justice.

On January 30 and 31, 2008, the University of Kansas Hillel emerged as a leader in campus environmental activism through its work on a project called “Focus the Nation” (www.focusthenation.org). “Focus the Nation” is a national initiative that sought to make climate change a major campaign issue in the 2008 U.S. presidential and Congressional elections.¹

Hillel designs programs and initiatives to meet at least one of the three “highs”: high-visibility, high-contact, and high-impact. High-visibility programs promote Jewish life and values on campus in a prominent way. High-contact programs create an opportunity to meet a large number of people at one time. High-impact initiatives seek to create a meaningful Jewish experience for the participants. Sustainability programming in general has produced many new avenues to achieve these “high” goals. “Focus the Nation,” in particular, uniquely presented the opportunity to meet all three in one initiative.

KU Hillel initiated the University’s involvement in “Focus the Nation” after twelve of its student leaders participated in the Everett *Tzedek* Social Action Project² and created a series of projects focused on climate change and environmental sustainability.³ After filming a documentary about student perception of climate change,⁴ explaining the virtues of compact fluorescent light bulbs, buying locally grown food, and greening the Hillel building, the students were eager to develop a much larger initiative to discuss environmental issues on campus.

Students on more than 100 college campuses created events to engage their local elected officials in a dialogue about climate change and about what actions can be taken today to ensure the health of the planet tomorrow. At the University of Kansas, Hillel students partnered with the KU Center for Sustainability, KU Environs (a campus environmental group), and Delta Force (a campus social action group) to put together