



Project Wadi Attir

A Model Sustainable Desert Community



January 2014

Project Update

This is the sixth in a series of project updates that are produced periodically in order to keep our partners, funders, supporters and friends informed about progress at Project Wadi Attir. The project is a groundbreaking initiative of the Bedouin community in the Negev establishing a model, community-based, ecologically-sound, agricultural initiative. Launched jointly by The Sustainability Laboratory and The Hura Municipal Council, the project showcases implementation of holistic sustainability principles developed by The Lab. It demonstrates an approach to sustainable development in an arid environment, valid and replicable locally as well as in other desert regions around the world.

2013 was a momentous year in the realization of Project Wadi Attir. After five intensive years of planning, preparation, and capacity building, the project finally broke ground and the first phase of the site work has been completed. The physical transformation of our 100-acre site has been very dramatic, as illustrated in the Photo Gallery that follows.

Last year, work proceeded largely in three main, parallel tracks: site preparation; implementation of the project's soil enhancement program; and finalizing detail design of key structures, while going through necessary building permit processes.

At the beginning of the year, Keren Kayemet LeIsrael's (KKL) specialized earth-moving equipment launched the site preparation work, as planned. This yearlong effort, at a cost of \$1 million, was supported in great part with contributions from the Jewish National Fund (JNF), KKL's sister organization in the United States. JNF's CEO, Russell Robinson, has been a long-time enthusiastic supporter of the project. The site preparation work, a first phase in our implementation plan, involved considerable earth-moving and formation of level sites for all agricultural facilities; the paving of all internal roads and pathways and construction of the entrance parking lot; construction of the perimeter fence; and construction of the water retention earth mounds following the project's own specific designs for water management and drainage requirements. The excellent site preparation work was performed by KKL's Southern Region office, under the very able leadership of Ami Uliel, Yosi Otmazgin, and Yumi Mor-Yusef.

Implementing the soil erosion and water retention system is a key part of the project's soil enhancement program, designed and supervised by BGU researcher Stefan Leu and his team. As part of this program, we have been collecting 27 species of desert hardy trees and shrubs in the project's greenhouse. These are intended to improve soil fertility and increase the carbon content of the soil, hold water in place, sequester nitrogen, and provide shade and protection against the prevailing winds, thereby enriching the biodiversity of the site. To date, some 3,000 trees have been transferred to the 100-acre site, including 360 high-quality olive trees, planted by local high school students last March. All trees have taken well to the transfer, completely transforming the characteristics of the previously barren site. In addition to the immediate visual impact, we are already seeing some other spectacular changes: bird species not previously seen in the vicinity are now visiting in increasing frequency and numbers.

Throughout the year, work proceeded intensively on detailed design of the key structures planned for the site, including the Visitor, Training and Education Center, four pens for the animals, the milking facility, barn, logistics storage, drying shed for medicinal plants, as well as the composting, bio-gas production, and wastewater treatment facilities. The project's dairy plant will be tackled in the coming months. Professor Isaac Meir and his architectural team at the Department of Man in the Desert, The Jacob

Blaustein Institutes for Desert Research at Ben-Gurion University of the Negev, who are responsible for designing the main structures on the site, have been working hard to finalize detail designs and taking all plans through the building permit process. Yones Nabari, founding member of Amutat Wadi Attir and our energetic project manager, was instrumental in coordinating the long and at times excruciating process of coordinating with the authorities. We expect to have all the necessary permits by spring of 2014.

The end of the year saw torrential rainstorms that put our water retention and erosion protection systems to the test. During three days in December, 160 mm of rain, nearly 80% of the yearly average, was recorded in the area of the project site. The low water-retention earth mounds designed by Stefan Leu and distributed throughout the site, performed well, holding large quantities of water that otherwise would have been lost, and forming large water pools in the open fields. The pools attracted waterfowl to the site, where they were able to enjoy the calm after the storm—a very rare sight in this area.

Other Development Highlights

- ▶ Zenith Solar, the young Israeli energy company that has been working with us for the last few years on designing a solar energy system for the project, ceased operations during the year. This meant that the project lost a close partner, as well as a NIS 900,000 grant from the Ministry of Energy for installing the company's solar system on the project site. During 2013, we began working with Augwind, a new Israeli start-up, on addressing the project's energy needs. The Augwind system combines the use of both wind and solar energy sources, with technology capable of generating stable and non-intermittent power. Augwind Founder and President, Dr. Or Yogev, a graduate of The California Institute of Technology, has been working with the project team to custom-design a system for supplying all the electricity and thermal energy required to operate the project's activities. We plan to resubmit the new design for the next round of competitive grants awarded by the Ministry of Energy.
- ▶ The project's Medicinal Plants, Indigenous Vegetables, and Dairy Products teams have been working on developing their respective operations. The Medicinal Plants team has already planted the first batch of medicinal plants – altogether some 3,000 new plants of four different species; constructed a greenhouse for growing new seedlings; and began experimenting with the production of preliminary samples of health products. Our first vegetable crops of zucchinis, eggplants and peppers have already found their way to local markets, and a search is now underway for the appropriate starter herd of young sheep and goats. Members of the Medicinal Plants and Dairy teams have started developing business and marketing plans for their respective enterprises. They are supported in these efforts by Fred Eden, an expert business development professional. The project's long-time graphic designer, Shai Zauderer, will work with the teams to develop the necessary packaging and branding materials.
- ▶ Galit Yahya Tzfadia, Capacity Building Director at Shatil, a local NGO dedicated to justice, democracy and social change, conducted extensive interviews with members of the project team and members of the broader Project Wadi Attir family, in order to assess organizational strengths and weaknesses and identify further capacity building needs. We look forward to continuing this effort with Galit and her team during the coming year, as we continue to strengthen our capacity, delegating increasing responsibilities while developing evermore-effective teamwork.
- ▶ The project continues to attract significant attention in Israel and abroad. It has been frequently presented and discussed with audiences around the world. Visits to the project site increased during 2013 and included a group of parliament members and heads of municipal councils from throughout Israel; a group of European Union parliament members; a group of representatives from the Ministry of Agriculture and from the Ministry of Development of the Negev and the Galilee; existing donors and potential new funders; JNF delegations to Israel including the JNF Presidents delegation; journalists and television crews; various student groups; and others.
- ▶ It is impossible to conclude this brief update without a special mention of the tireless performance of our Project Manager, Yones Nabari. Yones has emerged as a true leader. He is responsible for much of the progress that has been made thus far.

What's Next?

2014 promises to be another critical year, in which we look forward to completing the implementation of most buildings and infrastructure. By the end of the first quarter, we will issue tenders for water mains and sewage connections; the electrical grid, periphery lighting and transformers chamber; the purchase of an agricultural tractor; and the construction of all internal fences. Tenders for key agricultural structures will follow. We expect construction of key structures to be underway by early summer.

By year's end, we hope to have most facilities in place, including the animal pens and the milking facility; the first phase visitor, training and education center; the barn; the logistics storage facility; the drying facility for medicinal plants; and key components of the integrated system of green technologies that will support the site. As soon as construction of the pens is completed, a high-quality herd of animals will be purchased and established in its new habitat.

Simultaneously, detailed design for the dairy plant and plans for the project's solar/wind farm will be finalized and ushered through permit procedures, paving the way for all construction work to be completed by yearend 2015. As construction proceeds, our teams will work on developing and finalizing business and marketing plans for the Dairy and Medicinal Plants operations, both income-generating and job-creating initiatives. The teams will develop and market-test sample products and related branding and packaging, with the launch of both initiatives to follow.

During the last quarter of 2014, we also plan to welcome the first classes of high school students to the project's Visitor, Training and Education Center, which we expect will quickly establish itself as an important regional tourist destination and educational facility. 2015 will be devoted to finalizing all the remaining elements of the project's implementation plan and running in, evaluating and refining operations, so that by year's end, all that began in 2008 as an unlikely dream should be completed.

Michael Ben-Eli

Funding

Ongoing Operating Costs:

Our funding base for support of the project's ongoing operating costs has continued to expand. During 2013, we were happy to welcome the following new donors: Alisa and Dan Doctoroff; Suzanne and Sheldon Nash; The Alan B. Slifka Foundation; and Shelley and Donald Rubin. Just before year's end, the project received an extraordinary gift of one million dollars, earmarked for the project's capital costs, from long-time supporter Robert Arnow.

Since we launched Project Wadi Attir in 2008, the work of the project team was made possible by generous contributions from a diverse group of individuals and foundations, a significant number of which have become repeat donors (indicated, below, by an asterisk). The full roster of our donors include the following:

Diane Archer and Stephan Percer	Joanna Corrigan*
Joan & Robert Arnow*	Alisa and Dan Doctoroff
Kathi & Peter Arnow	Eugene M. Grant*
Elyse & Joshua Arnow*	Jeffery Gural
Ruth Arnow*	Ron Guttman
Anonymous*	JFNA Social Venture Fund for Arab Israeli
Anonymous*	Equality & Shared Society*
Anonymous Foundation (Israel)*	Jewish Funders Network/Richard and
Michael Ben-Eli	Rhoda Goldman Fund
Lawrence Benenson	Tony Leichter*
Lillian Ben Zion	Murray Nathan & Rita Calderon
Martin Blackman	Susan & Randy Richardson*

Joe Rosenblatt
 Shelley and Donald Rubin
 The Arnow family Fund
 The Jacob and Hilda Blaustein Foundation
 The Green Environment Fund
 The Moses Feldman Family Foundation*
 The Robert Sillins Family Foundation*

The Alan B. Slifka Foundation
 Shirley and William Fleischer Foundation
 Michael Sonnenfeldt
 Michael Weinstein
 Bill Wiener*
 Roy Zuckerberg

All of our accomplishments to date would not have been possible without the generous support of all our funders, and the forward-looking philanthropic leadership of the Arnow family.

Summary of 2013 Operation Costs:

Operation costs related to ongoing work performed by our local project team, from January 1, 2013 to December 31st, 2013 amounted to \$322,753, as follows:

Local Project Team & Secretary	\$115,355
Accounting	\$13,029
Travel	\$20,000
Equipment & office supplies	\$2,169
Hospitality	\$1,366
Ben-Gurion University research team	\$36,600
Service providers & site-related costs	\$128,571
PR, outreach, & local fundraising	\$5,663
Total	\$322,753

Disbursement of funds has been managed by Amutat Wadi Attir. The accounting firm of Eyaid Ahmad continues to serve as the project's accountants.

Implementation Costs and Future Funding Needs:

Capital costs of implementing Project Wadi Attir, including site preparation; detailed design and construction of all planned structures; and the realization of the project's unique, integrated infrastructure of green technologies is estimated at \$6 million. Half of this amount has been committed by the Israeli government on a matching basis.

During 2013, funded largely by the US-based Jewish National Fund (JNF), Keren Kayemet LeIsrael (KKL) has completed all site preparation work at the cost of some NIS 3.6 million (just over \$1 million). JNF's CEO, Russell Robinson, a staunch supporter of Project Wadi Attir, pledged to continue JNF's fundraising drive on behalf of the project. To date, approximately \$2.5 million toward the government match has been secured. This includes the value of site preparation work performed by KKL.

Disbursement of government funds, managed by the Ministry of Agriculture and Rural Development, under the able leadership of Regional Director, Yoav Morag, has already commenced and will continue flowing throughout 2014. As we pursue completion of our capital campaign, we shall also be seeking multi-year pledges to cover ongoing annual operating costs, estimated at \$350,000 per year for the next two years.

For information about making tax-deductible contributions in support of Project Wadi Attir, please contact Joshua Arnow at jia711@gmail.com, or The Lab's Operations Manager, Arielle Angel, at arielle@sustainabilitylabs.org

Photo Gallery

Soil erosion prior to implementing the site preparation work and the project's soil enhancement plan



Site plan showing all key elements of the project





Left: Dr. Michael Ben-Eli, founder of The Sustainability Laboratory, and project team member Ali Alhawashleh with KKL earth-moving equipment Right: KKL earth-moving equipment launching the yearlong preparation of the project site



From left: Surfacing the main entrance road at the site; Laying the walkway at the site parking lot; Constructing the parking lot



Rendering of Visitors Center, phase-one. Designed by the Desert Architecture & Town Planning - Dept. Man in the Desert, Jacob Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev





High school students planting the project's 360-tree olive grove; Posing with an olive tree during the all-day planting event



Dr. Stefan Leu, researcher at the Blaustein Institute for Desert Research, checking newly planted trees with Dr. Ben-Eli. Leu is in charge of developing and supervising the project's soil enhancement program.



Top: All 360 olive trees planted onsite have taken root and are thriving. Bottom: Water-retaining earth mounds, with a view towards the olive groves





Left: The new sign, welcoming visitors to the project site

Below: Project Wadi Attir field office



Team members Yones Nabari and Ghadir Hani at the project's field office



Medicinal plants operation's first product sample



2,500 trees, representing 27 different desert-hardy species, were planted as part of the comprehensive soil enhancement and water retention program.





Left: The project's first eggplant harvest



From left: The first zucchini crop; Desert medicinal plants cultivated on the project site



From left: Tending the first vegetable crops; Peppers grown on the project site





Left: Dr. Mohammed Alnabari and Dr. Michael Ben-Eli welcoming (L-R) Dr. Clinton Bailey, world-renowned scholar on Bedouin society, Lynn Holstein, Director of External Relations at ISCAR and Stef Wertheimer (second from right), Founder of ISCAR, on a visit to Project Wadi Attir



Melinda Wolf, Jewish National Fund Board Member, and Russell Robinson, JNF CEO, with Wadi Attir Project Manager Yones Nabari during a visit to the project site



Project team member Mariam Abu Rakayek presenting an indigenous desert canteloupe to Swiss-based lawyer Olaf Ossmann and daughter Lisa during a visit to the project site



Joshua Arnow, with a group of friends and donors to Project Wadi Attir, being introduced to the site by Dr. Stefan Leu and Dr. Mohammed Alnabari





Presenting Project Wadi Attir at an event in New York sponsored by the Jewish Funders Network and the Inter-Agency Task Force on Israeli Arab Issues



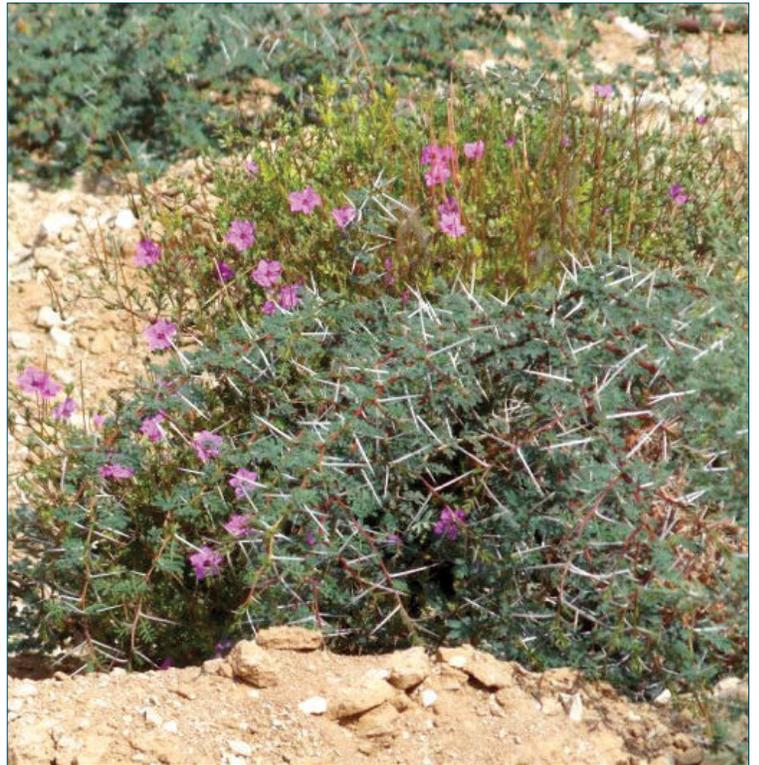
Left: At a project team meeting Right: Lab Intern Ellen Goettsch and project team members Rawan Nabbari and Ghadir Hani at project team meeting



Project Wadi Attir Educational Director Shahde Abu Sbeit with local high school students at the project site



New species of birds and plants enrich the biodiversity of the site – a direct result of the extensive tree-planting effort



Above: A rare sight: Waterfowl enjoying a moment of peace after the storm



*Top: Water from the heavy year-end storms captured by the liman irrigation system, part of the project's anti-soil erosion program
Below: Tree beds after the storm*



Project Wadi Attir is a joint initiative
of the Hura Municipal Council
and the Sustainability Laboratory.



Participating and supporting partner organizations include
the Ministry of Development of the Negev and the Galilee
the Ministry of Agriculture and Rural Development
the Authority for Economic Development of the Arab, Druze and Circassian Sector
Headquarters for Economic & Community Development of the Negev Bedouin
the Authority of Bedouin Settlement in the Negev
the Jewish National Fund (JNF); Keren Kayemet L'Israel (KKL)
The Blaustein Institute for Desert Research of the Ben-Gurion University of the Negev (BGU)
Kibbutz Kramim; AMAL Educational Network; NETAFIM;
the Negev Institute for Peace and Development Strategies, (NISPED)

משרד החקלאות ופיתוח הכפר
Ministry of Agriculture & Rural Development
وزارة الزراعة وتطوير القرية



אוניברסיטת בן-גוריון בנגב
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