

**Quarterly Program Performance
Report 2 of 2000**

Grant Number: PCE-G-00-98-00011-00

Project Title: Appropriate Technology for Wastewater Treatment
and Reuse in Rural Middle East Areas

Organization I.D.: 10287

Organization Name: The Galilee Society

Resource Code: 410463

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Reporting Period: April 1, 2000 - June 30, 2000

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Summary:

- **ATC Annual Meeting:** On May 22-23, 2000, the ATC held its Annual Meeting at the Galilee Society's offices in Shefa'amr, Israel.
- **Opening Ceremony for the Sakhnin Pilot Site:** On May 22, 2000, the ATC held the Opening Ceremony for the Wastewater Treatment and Reuse Pilot in Sakhnin.
- **Brochure:** In May, the Galilee Society published a 20-page brochure in English and Arabic, entitled "The Wastewater Treatment Pilot Site."
- **Technical Meeting:** On June 29, 2000, the Galilee Society and the Technion held a Technical Meeting to discuss the future work plan for the Sakhnin Pilot Site.
- **Evaluation Visit:** On June 1-4, 2000, the ATC Project Manager traveled to Egypt to assess the progress of the ECOA, and to up-date the work plan.
- **Website:** The Galilee Society re-designed and up-dated the ATC web pages to include more information and ease accessibility to the site.

1. ATC Annual Meeting: Summary of Major Decisions and Outcomes

- **Sakhnin Wastewater Treatment Pilot Site**

1. The ATC held the Opening Ceremony of the Sakhnin Wastewater Treatment Pilot on the first day of the Annual Meeting. *(See Section 2 below for more details.)*
2. The ATC partners discussed the status of the project, as well as its specific activities. The start-up period of the Sakhnin Wastewater Treatment Pilot is taking longer than anticipated. As the partners intended to use the results of the Sakhnin pilot to determine the choice of unit(s) at the full-scale system in Beny Zaid, this delay raised questions as to how to best proceed with this work.
3. The partners agreed that usable results from the Sakhnin pilot would only be attained after another year. Nevertheless, the partners confirmed that the units appeared to be operating well, and are pleased with the pilot results achieved to date. Based on suggestions from some participants, the GS and the Technion agreed to hold a technical meeting in June to create a new and more detailed work plan for the pilot for the next six months.

- **Beny Zaid Full-Scale Treatment & Reuse System**

The PHG announced that it would soon submit the Master Plan for the full collection and treatment system to be constructed in Beny Zaid, to the Joint Water Committee (JWC) for approval. The partners also discussed the beginning stages of the detailed design of the system, including the question of whether or not to construct a reservoir. The focus of this discussion centered on two major factors: cost and available water resources.

- **Sadat City Treated Wastewater Irrigation Pilot**

Much to the surprise of the ATC partners, ECOA representatives did not attend the Annual Meeting. Thus, the other Executive Board members decided that Dr. Isam Sabbah, ATC Project Manager (The Galilee Society) should travel to Cairo in early June to meet with ECOA, assess its progress, and prepare an evaluation report on ECOA's status for the Executive Board. Based on Dr. Sabbah's report and subsequent steps taken by ECOA in the coming months, the Executive Board agreed to re-evaluate ECOA's progress in November/December, 2000.

The Galilee Society will provide the full Annual Meeting minutes, as well as individual partners' progress reports, upon request.

2. Wastewater Treatment Pilot - Sakhnin, Israel

- **Opening Ceremony**

The ATC partners held an Opening Ceremony for the Sakhnin Wastewater Treatment Pilot on the first day of the Annual Meeting. The purpose of the Opening Ceremony was twofold:

1. To increase public awareness of ATC's activities among NGOs and governmental bodies;
2. To build ties with other water and environmental specialists and organizations.

The Opening Ceremony consisted of:

Brief Speeches: Invited guests Dr. Azzam Tubeili, Deputy Minister of Agriculture, Palestinian Authority and Dr. Alvin Newman, Water Resources Engineer, USAID West Bank & Gaza Mission provided keynote speeches, and partners Mr. Abdel Kareem Rimawi, Mayor of Beny Zaid, Professor Michal Green, Faculty of Agricultural Engineering, the Technion, Dr. Ayman Rabi, Executive Director of the Palestinian Hydrology Group (PHG), Dr. Basel Ghattas, General Directory, The Galilee Society, and Mr. Mostafa Abu-Raia, Mayor of Sakhnin delivered welcoming remarks.

A Tour of the Site: Representatives of the GS and Technion led the participants on a tour of the site, providing background information on the purpose of the pilot, each of the treatment stages, and initial results obtained. The partners also disseminated the specially prepared informational brochure about the site to all participants.

Luncheon: The ATC hosted a luncheon for participants at a local restaurant.

Approximately 60 guests attended the event, including representatives of: USAID (West Bank & Gaza Mission), ANERA, Ministry of Agriculture - Palestinian Authority, Ministry of the Environment - Israel, Eilaboun City Council, The Olive Oil Council, Sanara newspaper, Ofra Aqua Plants, and the Razi Center. ATC partner representatives attended from the GS, Sakhnin Municipality, the Towns' Associations for Environmental Quality - Agan Beit Natufa, the PHG, Beny Zaid Municipality, and the Technion.

- **Brochure**

In May, the GS published a 20-page brochure, in English and Arabic, entitled "The Wastewater Treatment Pilot Site, Sakhnin." The brochure, specially prepared for the Opening Ceremony of the Sakhnin pilot, is written for lay readers as an introduction to wastewater treatment and reuse in general, and the ATC project in particular.

The introductory section of the brochure summarizes ATC's activities and answers some frequently-asked questions (FAQS) about the project as a whole, including:

- Why focus on wastewater?
- Why is wastewater treatment and reuse important for the Middle East, and especially for rural areas?
- Why are appropriate technologies important?
- Why work together as a regional consortium?

It then provides a brief of description of the town of Sakhnin and of the treatment site. The main sections of the brochure focus on each of the ATC pilot units, which are included within a broader outline of the site's "Treatment Stages." The brochure ends with a profile of each ATC partner. USAID is duly acknowledged in the brochure.

The ATC intends to use the brochure over the next 1-2 years as publicity material for the project, and as an educational resource. Additional copies are kept at the offices of ATC partner, The Towns' Association for Environmental Quality - Agan Beit Natufa (TAEQ), located at the Treatment Site itself, such that they are easily available to groups who come to tour the site. The brochure can also be accessed via the Galilee Society's website on the ATC web pages at the following URL: <http://www.gal-soc.org/atcbrochure.html> The ATC will also translate and publish the brochure in Hebrew in the coming months. The brochure was printed on recycled paper.

Copies of the brochure in English and Arabic are attached.

- **Technical Meeting**

As decided at the ATC Annual Meeting, Galilee Society and Technion staff held a technical meeting on June 29, 2000, at the GS R&D Center offices in Shefa'amr. The participants agreed to a new and more detailed work plan for the next six months as well as changes in the operation plan. The main decisions from the meeting follow:

- Vertical Bed No. 1 will be cleaned and its bed will be replaced with new gravel.
- The other two vertical beds will be prepared and then all three vertical beds will operate consecutively.
- The wastewater inlet for the vertical bed will be switched from the sedimentation pond to the facultative pond. This step will prevent and reduce the clogging of the vertical beds by suspended solids.
- The residence time distribution of the Up Flow Anaerobic Sludge Blanket (UASB) reactor will be studied in order to understand the hydraulic behavior of the UASB.
- New and larger amounts of sludge seed will be added to the reactor.

3. Treated Wastewater Irrigation Pilot - Sadat City, Egypt

- **Evaluation Visit to ECOA**

From June 1-4, 2000, Dr. Isam Sabbah traveled to Egypt to meet with ECOA staff and representatives of El-Sadat City Municipality in order to evaluate the work performed to date by ECOA, and to finalize ECOA's work plan for the coming months.

Summary of Major Decisions and Outcomes of the Visit:

- ECOA decided to appoint a full-time Project Manager. According to the Work Plan (*see table below*), Dr. Ahmed El-Araby will perform this function through August 2000.
- ECOA will submit monthly financial reports. These reports will include advance payment requests and expenditure reports for each month, approved by KPMG Hazem Hassan, Public Accountants & Consultants, Cairo, Egypt.
- The Galilee Society agreed to transfer US \$10,000 immediately to ECOA's bank account for May 2000, and another payment for June 2000. The June 2000 payment was based on the monthly advance payment report.
- Dr. Ahmed El-Araby will write job descriptions for any new ECOA project staff members.
- ECOA staff created a new calendar for project implementation (*see table below*). ECOA will follow this calendar and implement these tasks in order to compensate for its delay.

ECOA Work Plan/Timetable - June 2000

Task Name	Task Force	Date of Execution
1- Project Manager	Prof. Ahmed El-Araby	Through the end of August 2000
2- Irrigation final design Dr. A.El-Gindy Specs, Pricing	Eng. Amr Khairi	25/06/2000
3- Irrigation Network for the site's hedges	Dr. Isam Wasif + Project team	26/06/2000
4- Research Plan Wastewater quality, Soil quality parameters, Crop selection, Pollution Measurements, etc.	Prof. M.S.EL-Nenna Eng. Y.Ezzat Eng. A.Shaddad	30/06/2000
5- Wastewater Sampling and analysis (3 sets of samples on the 11 th and 20 th of June, and on the 5 th of July)	Dr. Atef Nassrs Eng. Tamer Mostafa Eng. A. Shaddad	15/07/2000
6- Administration Building Design, Arch. Const. Drawings, etc.	Dr. Isam Wasif Dr.Hazem	20/06/2000
7- Underground water Source design, specs, Pump specs, electricity Generator specs and Prices, etc.	Dr.Isam Wasif Eng. Amin Shaddad	25/06/2000

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4. Web Page Improvements

The Galilee Society re-designed and up-dated ATC's web pages, which can be accessed through a new direct URL: <http://www.gal-soc.org/atc.html> New postings include: ATC's recently published brochure "The Wastewater Treatment Pilot Site, Sakhnin," a description and tentative course outline of the upcoming Farmers Workshop, as well as a call for lecturers and presenters for this Workshop, and a description of Partner Accomplishments in 1999.

From the Galilee Society's homepage, ATC's site can be accessed through the keyword link of "Water and Wastewater." Meta Tags have been included on the site, to ease accessibility from various search engines. The GS will notify NGOs with similar interests, including water and wastewater treatment projects and organizations, of the new site and ask to be included as a link on their sites. It is hoped that a broader audience will become aware of ATC's efforts through this venture, and that partnerships and cooperative efforts may be formed with other water and wastewater treatment projects.

5. Decision to postpone ATC's Farmers Workshop

The Galilee Society and the PHG have agreed to postpone ATC's first Farmers' Workshop on Wastewater Treatment and Reuse, from its original planned date of September 2000 to the spring of 2001.