

Sur Baher Girls School • Rain Barrel System & Environmental Education •
East Jerusalem • 800 Arab girls (grades 1-12) • 233,800 L conserved to date •

Sur Baher School, the site of WRAP's first rain harvesting installation in 2011, continues to serve as a successful model for water conservation and environmental education. Beyond its immediate impacts in the school, the WRAP system is used in environmental education activities with a network of other East Jerusalem Schools. WRAP continues to support these activities and ensure the system is well maintained and water collection and usage data continues to be reported. WRAP is collaborating with the Albuquerque Academy Desert Oasis Teaching Garden to connect students at WRAP schools including Sur Baher with students in the U.S., through shared environmental education projects.



WRAP Director of Operations, Dr. Malcolm Siegel with teachers and school administrators at Sur Baher.

Al Afaq School • Rain Barrel System & Environmental Education • East Jerusalem • 300
Arab boys with special needs (grades 6-12) • 101,700 L conserved to date •



Faculty at Al Afaq plant flowers in a reused boot.



WRAP rain catchment system supports school gardens.

WRAP's second system, completed in 2012, complements and enables a number of hands-on environmental activities that have been developed at the Al Afaq School. These include a compost site, multiple gardening plots, a greenhouse, and an outdoor covered classroom. Afaq is actively promoting and positioning itself as a model school for water conservation and resource sustainability. WRAP's rainwater harvesting system is a central component of this model, valued greatly by the school's leadership and children. The environmental program has also had an important impact on the community. It provides a sense of accomplishment and hope to both the students and their parents, who continue to face enormous challenges in their personal lives.

Battir Girls School • Cistern System & Environmental Education • West Bank • 120 Arab girls (grades 9-12) • 40% savings on municipal water bills •

WRAP's third project was dedicated in November 2013. This was WRAP's first project in the West Bank and first cistern rain harvesting system. The dedication ceremony celebrated the completion of the project in memory of WRAP's Founding Member, Robert T. Cole. WRAP owes much of its success to Bob's vision, energy, and commitment, and the Battir School cistern project was made possible largely by donations in Bob's memory. The cistern has already had a great impact on the school, providing much needed water resources and savings on municipal water. The program at Battir also supports the Good Water Neighbors program of WRAP's partner, EcoPeace Middle East.



Students, faculty, WRAP, FoEME, and Ministry of Education, Village of Battir officials, and community leadership.



◀ The Battir project was dedicated in memory of Robert Cole, WRAP Founding Member, pictured at left during his last trip to the region.

Cistern and surrounding area at Battir. ▶



Eynot Yarden & Tuba Zangaria • Rain Barrel Systems & Paired Education • Northern Israel • 387 Arab Israeli/Palestinian and 430 Jewish middle school students •



WRAP partners with school principal, science teacher, and students at Tuba Zangaria.



WRAP partner with rainwater system at Eynot Yarden.

In January 2014, WRAP undertook its fourth and fifth projects in tandem: rain barrel harvesting systems at two schools in Northern Israel. The first, Tuba Zangaria, is a middle school serving 387 Arab Israeli/Palestinian boys and girls located in Tuba Zangaria, a Bedouin village with a population of 6,500. The second, Eynot Yarden, is a middle school serving 430 Jewish boys and girls located on a kibbutz in Eynot Yarden of the Galil Elion region, population 20,000. The schools, in close proximity to one another, are part of a joint environmental education program aimed at facilitating cross-cultural exchange between Jewish and Arab Israeli/Palestinian youth through the common goal of protecting their shared environment. The systems are operating successfully at both schools. Rainwater is used for toilet flushing, gardening, and other agricultural activities like aquaculture and hydroponics.

What's Next?

• **West Bank Cistern** • WRAP is close to its funding goal for its next West Bank project, a cistern rainwater system and educational program at the Al-Sedeeq Primary School, serving 389 Arab boys. Located in the Village of Husan, West Bank, the school's primary source of water is an unreliable municipal water network. The school experienced over 30 days of restroom closures due to water shortages last year.



The cistern planned for Al-Sedeeq will be similar to the cistern at the Battir School, pictured.

• **Jordan Projects** • WRAP is working to expand its network of schools into underserved communities of Jordan. A collaboration between WRAP, EcoPeace's Amman, Jordan Office, and local community organizations has been established to work towards this goal. The program would construct rainwater harvesting systems at the Lenticular Secondary School for Girls in Al Adaseya, the Sweileh High School for Girls in Sweileh, and the Sharhabil Bin Hassneh EcoPark in the Northern Jordan Valley. A parallel environmental education program would complement each system, engaging students in hands-on monitoring and reporting of system data, offering lessons about environmental science, water stewardship, and conservation.



Visitors tour the Sharhabil Bin Hassneh EcoPark in Northern Jordan. (Image Source: EcoPeace Middle East)



Students participate in hands-on activities during a field trip to one of Israel's ancient water wells.

• **Rotary Hands Across Waters** • WRAP is a proud supporting partner of the Rotary Hands Across Waters program, a collaboration between a growing number of domestic and international Rotary Clubs, and implemented by the Hi-Teach Water & Knowledge Program. The initiative builds upon the successful partnership between the Rotary Club of Coral Springs-Parkland, FL and the Rotary Club of Lod, Israel to utilize principles of water conservation within schools as a platform for promoting social interaction between various ethnic and religious communities throughout Israel.



WRAP is working to provide resources for water-related science experiments at Sur Baher.

• **Strengthening Education** • In addition to putting new projects on the ground, WRAP continuously strives to strengthen the educational programming at its existing partner schools. WRAP has been working with school faculty and administrators to identify priority needs for each school to bolster their environmental education programs. For the Sur Baher, WRAP is working to meet additional resource needs for science experiments related to water quality. At Al Afaq WRAP is helping the school develop tools to strengthen the culture of water conservation both at the school and within each student's home. WRAP is continuing to raise funds to assist the Battir School with constructing a safe learning garden in the courtyard that surrounds the cistern.

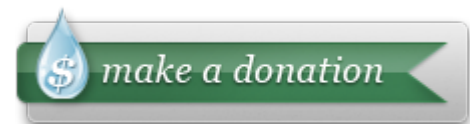


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