

Peacebuilding across Israeli/Palestinian Borders through Environmental Education

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Executive Director

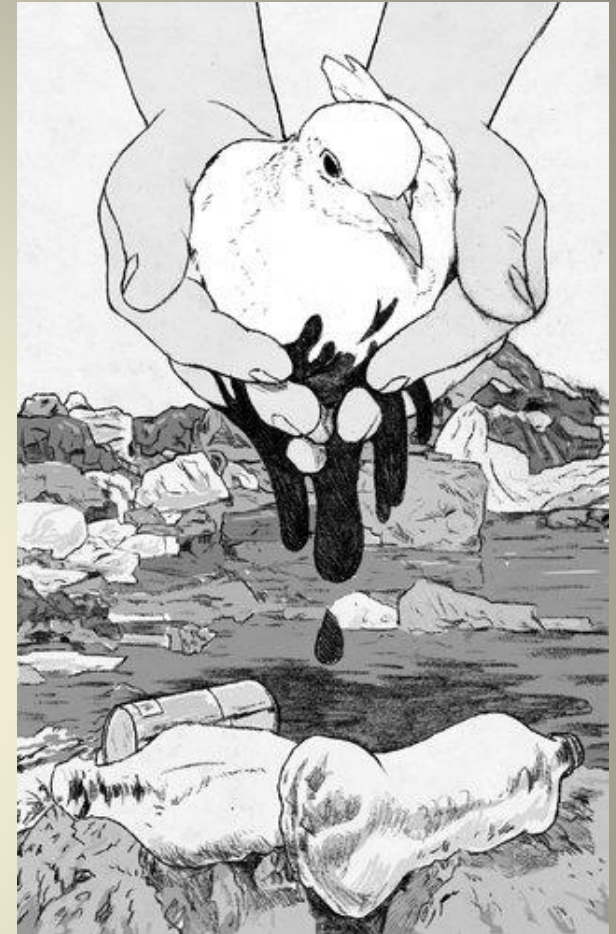
Water Resources Action Project, Inc.

www.wrapdc.org

***Conference on Environmental Conflict and
Cooperation***

University of California, Davis

March 3, 2021



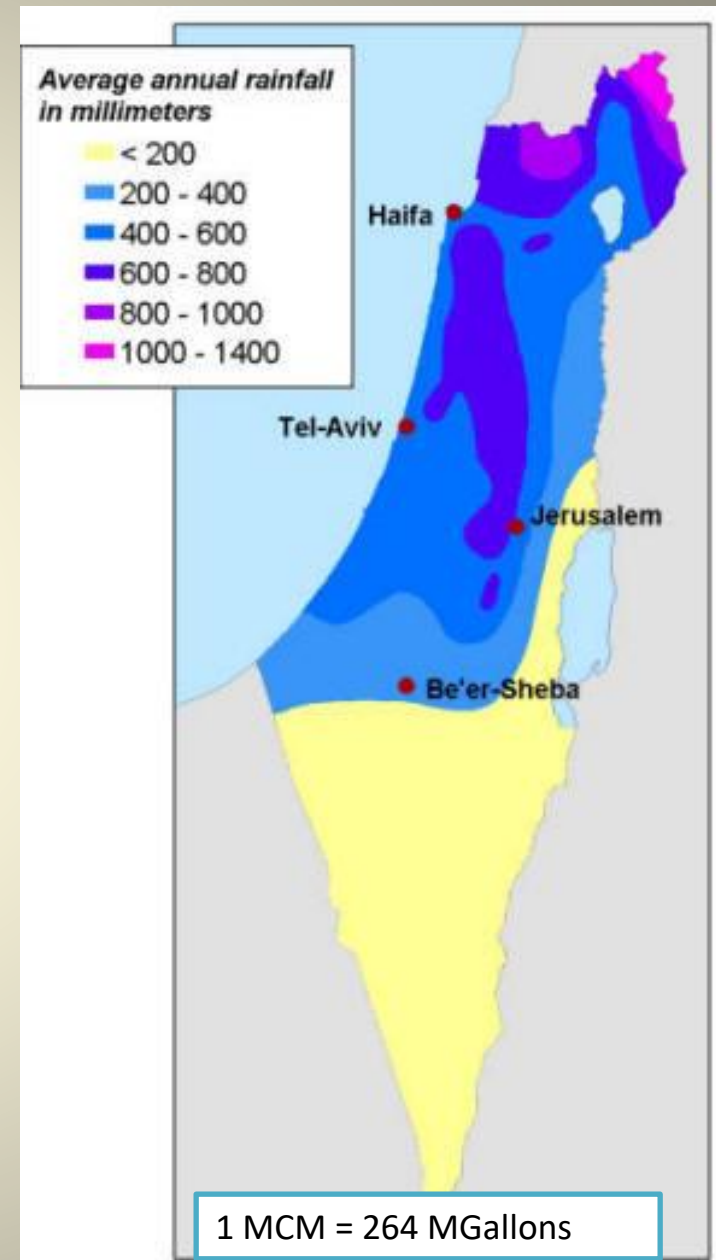
Kidron Valley/Wadi Nar Project



Water Problems in Israel/Palestine

- Climate variable over small region
 - Coastal/north Israel: cool rainy winters
 - West Bank and south & east Israel
 - arid, extended hot and dry season
- Rainfall varies greatly (< 50 to >1000 mm/yr)
- Pollution of Mountain Aquifer
 - 90% of sewage (50 MCM/yr) from PA towns flow into environment untreated
- Unequal distribution of water resources
 - many Palestinians not connected to water; buy from tankers; can spend 40% of income; average use in rural may be 20 -40 L/day (WHO recommends 100L/day)
 - Borders of Jerusalem Municipality, Separation Wall and Green Line leave some residents cut off from water supplies.

On-going environmental damage due to lack of Peace treaty



Ave annual precip (1961-1990)

Water Resources Action Project



- US-based non-profit organization founded in 2009.
- Seeks to improve public health in underserved communities in Israel, Palestine and Jordan through improved water stewardship.
- Sponsors, designs, and installs rainwater harvesting systems at schools, which supply 85% of water to rest rooms.
- Seeks to connect Arab and Jewish students through related environmental educational program.
- Works across *political, cultural* and *geographic* borders
- Strict political and religious neutrality.
- Results oriented- RWH installed, cross-cultural encounters, digital/virtual tools

Environmental Peacebuilding through Education

- Theory:
 - ❖ Sustainable management of ecological resources **creates an opportunity** for cooperation **distinct** from economic and political spheres.
- Participants are not waiting for Peace Treaty
- Builds transboundary communities based on shared resources.



WRAP Teachers workshop 2109

WRAP's approach

- Different levels of engagement
 - Individual school
 - Local clusters
 - Cross-cultural interactions
 - Teacher workshops
 - Student and parent visits
- Digital and virtual activities
 - Overcome political and cultural barriers

Important during COVID-19

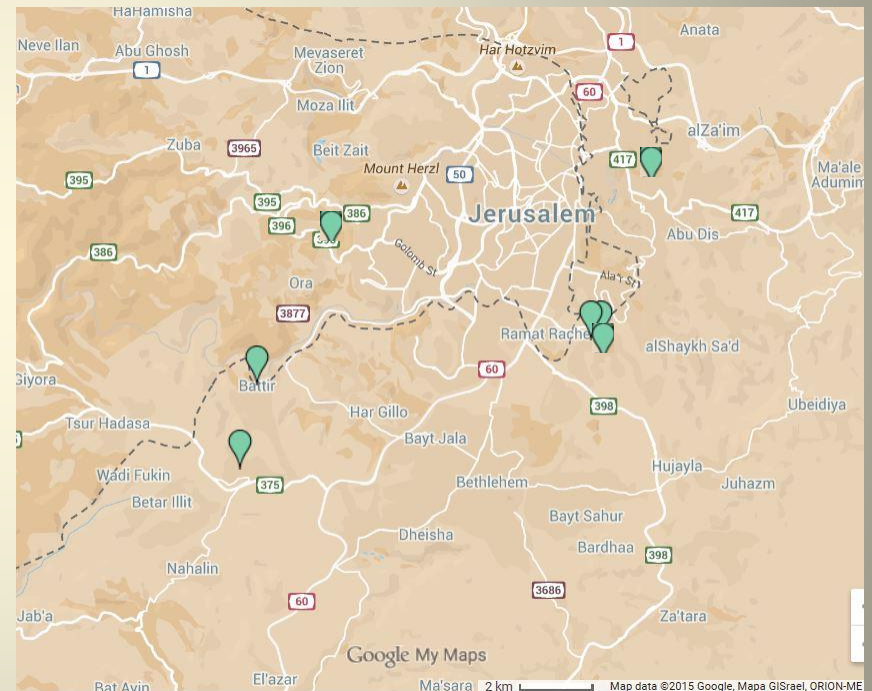


*Members of Kibbutz Gezer visit
Sur Baher, East Jerusalem*

Location of WRAP projects

Network of 15 schools in 4 clusters

<http://www.wrapdc.org/projects/>



Different projects cross different kinds of borders.

Components of Rainwater Harvesting System

Catchment Area

- Rooftop
- Land surface



Collection Device

- Storage tanks
- Rain barrel
- Water cistern



Conveyance System

- Gutters
- Down-pipes
- Pumps

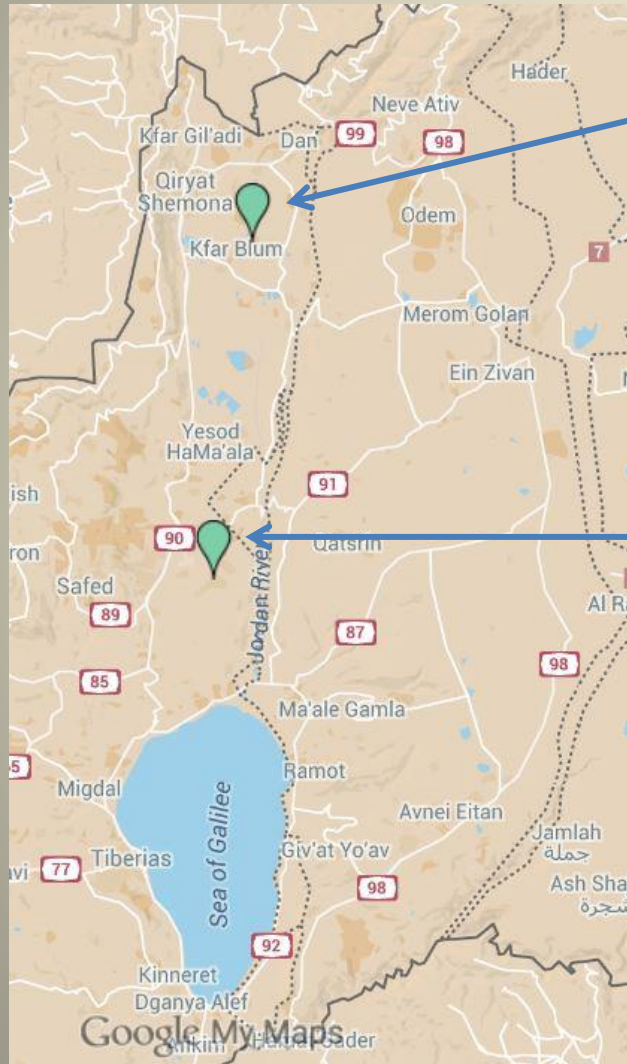




- From Barrels to Education
 - Water harvesting engineering
 - Environmental gardens with collected rainwater
 - Water quality chemistry tests
 - Public health issues- clean water, grey water
 - Meteorology and climate change
 - Innovative recycling of solid waste

Crossing a cultural border

Paired Schools in Northern Israel



- Eynot Yarden
 - Kibbutz Amir
 - 430 Jewish mid-school boys and girls
 - Completed March 2014
- Tuba Zangaria
 - Bedouin Village
 - 387 Israeli Arab mid-school boys and girls
 - Completed March 2014

Students from both schools participate in joint field trips.

Eynot Yarden High School, Kibbutz Amir



Programs:

- Hydroponics and greenhouse
- Arabic language course to focus on water issues.
- Visits to Tubas and assistance after fire in Mosque



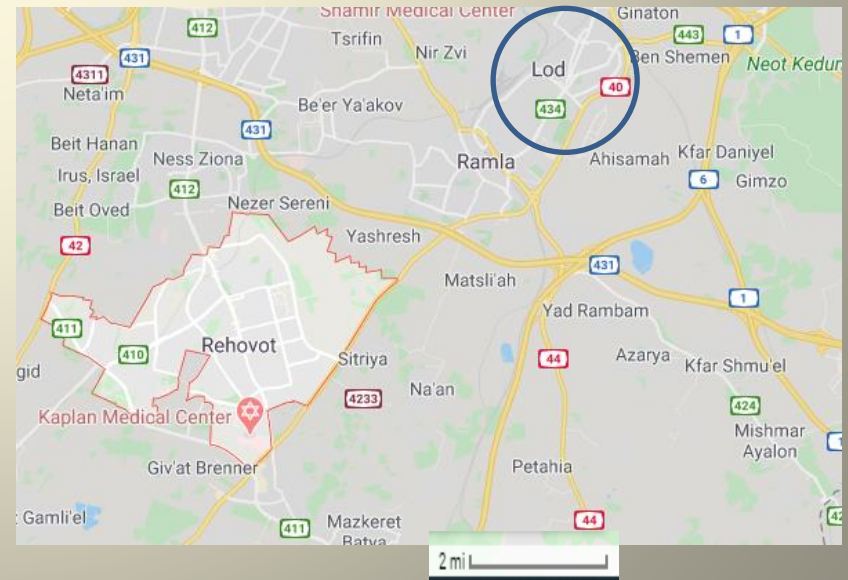
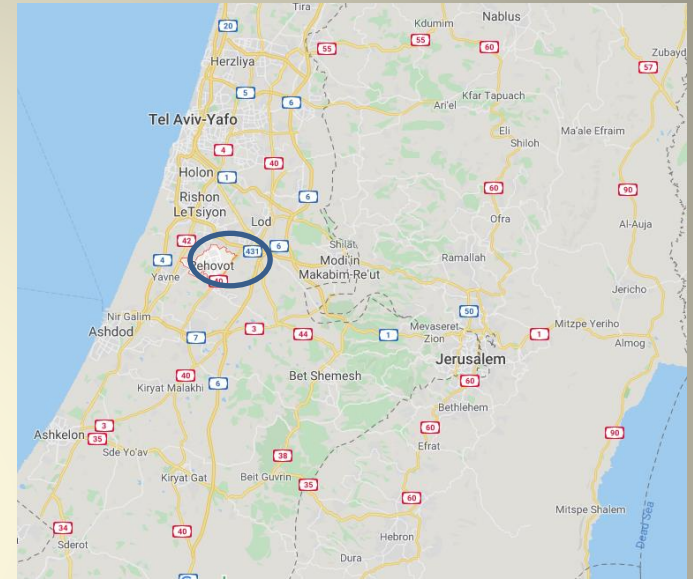


- Construction of greenhouse and hydroponics with guidance from Eynot
- Hosted visits by Eynot students with discussions with Iman about Islam
- Holocaust education presentation



Crossing a socioeconomic border

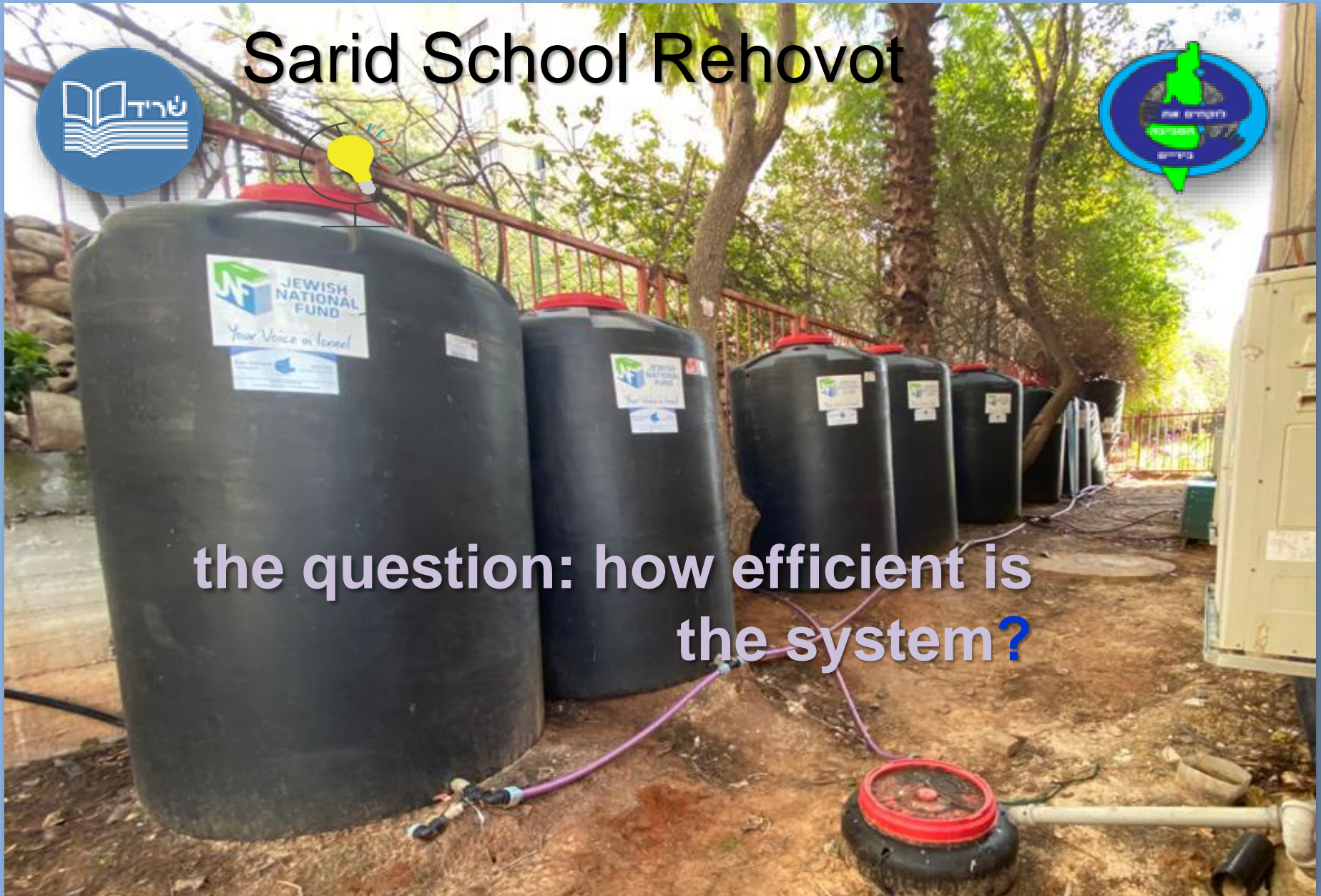
- Rechovot
 - Population - 132,700
 - 98% Jewish: Russian, Yemenite, Ethiopian. Modern Orthodox
- Lod
 - Population – 77,000
 - Mixed Arab-Jewish working class population
 - Limited contact between Arab and Jewish populations
- School projects
 - Sarid School, Rechovot
 - Ha Shita School, Rechovot
 - Al Zahara School, Lod



Sarid School Rehovot



the question: how efficient is
the system?



Rainwater Harvesting at Ha Shita School, Rechovot



Rainwater Harvesting at Al Zahara School, Lod

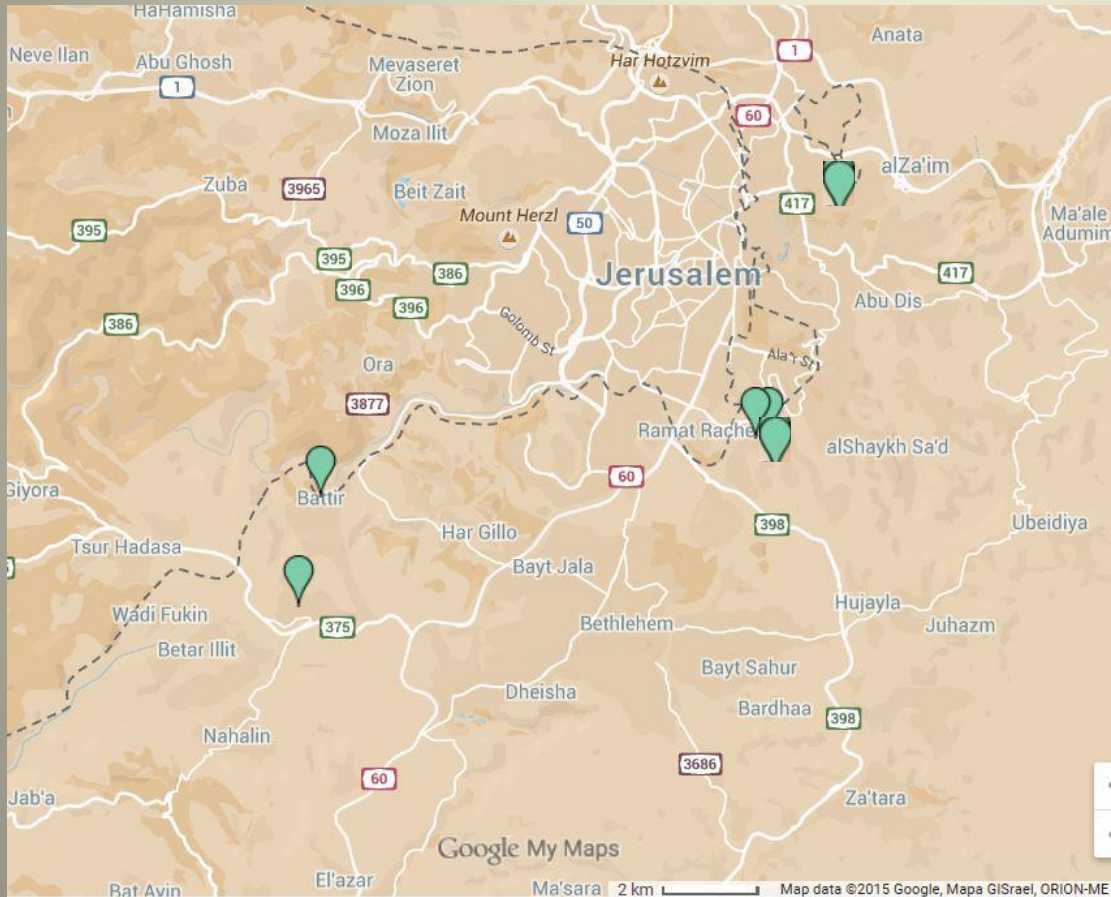


Rehovot-Lod Farm School Trip



Crossing political and geographic borders

Schools in Palestine, Israel and America



- Schools in East Jerusalem and Israel
 - 4 schools in East Jerusalem
 - Kibbutz Gezer
 - Triplet Program (with Albuquerque Academy)
- Schools in Palestinian Authority:
 - Battir Girls School
 - Husan Boys School

Village of Sur Baher, East Jerusalem



- Population
 - 18,000 (?)
- Annexed by Israel in 1967
 - divided by Separation Wall
- Area: 2.2 square miles
 - About 25% expropriated by Israeli government
- Employment
 - Manual labor, trade, some agriculture
- 90% residents hold Israeli Identity card
- Two WRAP schools
 - Sur Baher Girls School
 - Afak School for Special Needs

Environmental Education at Sur Baher Girls School,



WRAP Triplets Program

- Designed to overcome institutional barriers to direct Arab-Jewish communication.
- Joint blog and activities involving 3 schools:
 - Arab, Jewish Israeli and American
 - Produce E-books as way to raise funds and show projects to respective communities.
- Plant4peace blog
 - Posts in English, Arabic (and Hebrew)



Albuquerque Academy Bio-E



Sur Baher Girl's School E-Club



Kibbutz Gezer

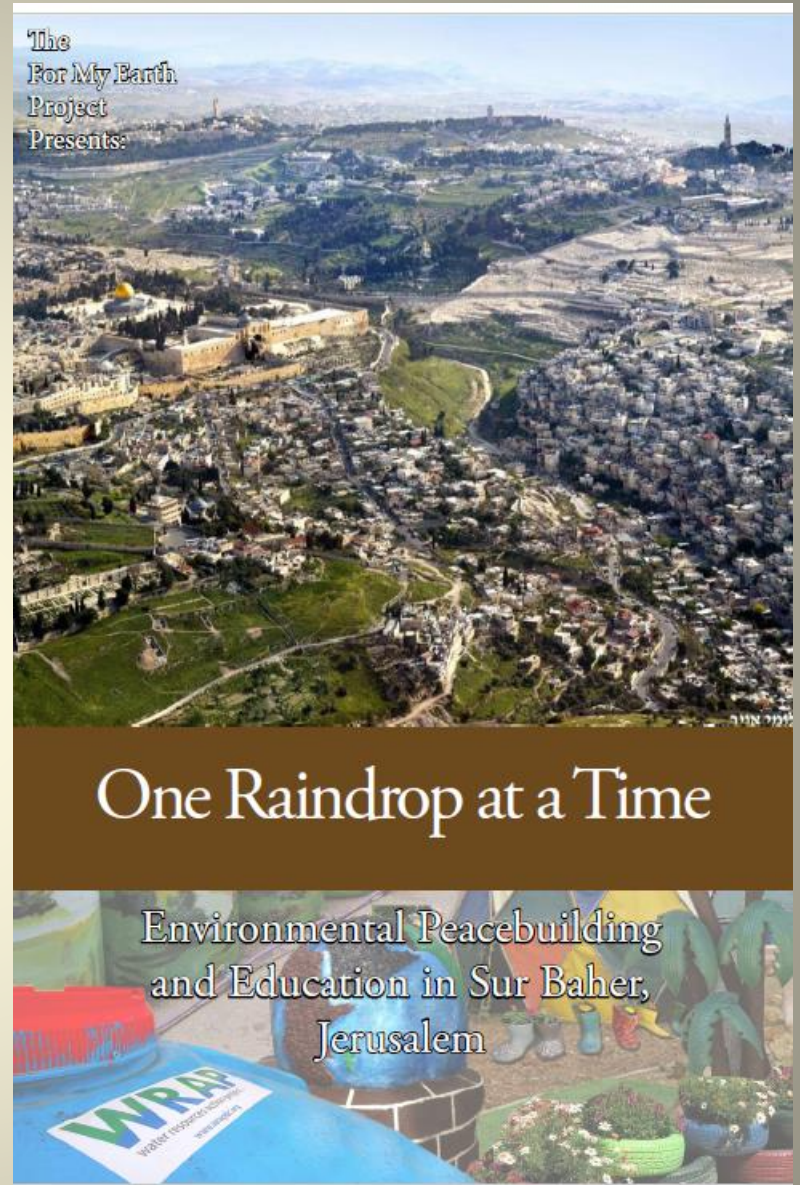
Eco-village located near
Jerusalem with environmental
club activities

For My Earth Project

- Describes environmental education at Sur Baher and Afak schools
- Essays by students and teachers at the 2 schools in English and Arabic
- ABQ Academy students project on history of Sur Baher
- Collaboration with University of New Mexico School of Business

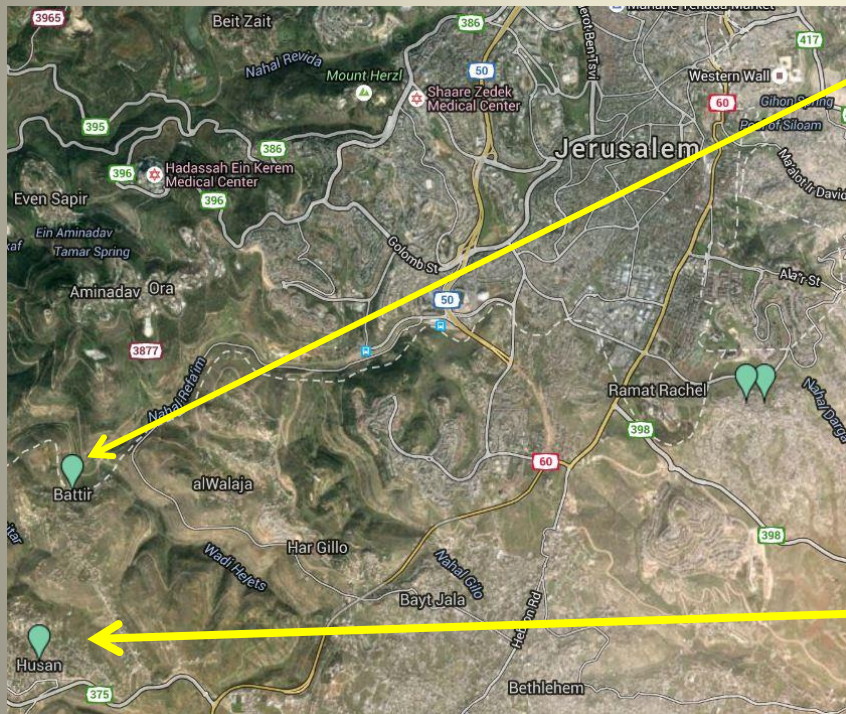
WRAP Goals:

- Raise funds for projects at schools
- Develop network among WRAP schools
- First Ebook published in Early 2017



Still waiting at the Border

Palestinian Authority Schools



Partner: EcoPeace



Battir School for Girls
120 Arab girls
Opened October 2013



Al Sadeeq School, Husan , West Bank
389 Arab boys, opened October 2015.

Battir Girls High School

Village of Battir , West Bank

- 120 Arab girls
- Cistern System
 - 62,000 Liter capacity
- Water used in 3 restrooms
 - Previously closed due to water shortages
- Cost savings Fall 2014
 - 40% of school water bills
- Student environmental club
- Summer camp and community garden

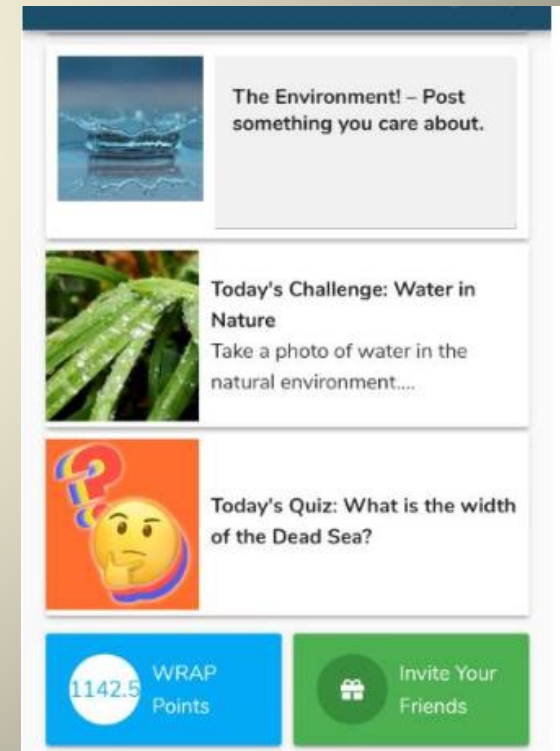
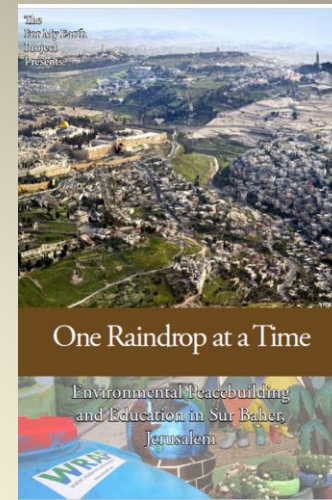
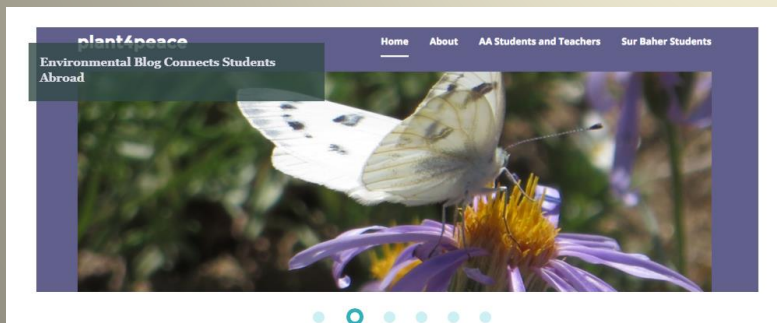


2021 goals:

- connect Battir Girls school with Sur Baher school for girls.
- Connect Husan boys' school with Umm Tuba boys' school
- Create Triplets with US schools and Kibbutz Gezer

Digital environmental cross-cultural education

- Plant for Peace blog
- Environmental photo contest
- E-books
- Virtual reality
- WRAPapp



Environmental education is an important tool in environmental peacebuilding.

- Sharing of water resources is one of the Final Status issues of the Oslo Accords in the Israeli-Palestinian conflict but conflicting narratives about the past and present make cross-border discussion difficult.
- Environmental Peacebuilding focuses on common environmental problems to build trust between the parties.
- Environmental education provides many opportunities for students to work together across cultural, political and geographic borders.

“The day is short; the task is abundant.....you are not obligated to complete the work, but neither are you free to abandon it.”

(Rabbi Tarphon, the *Talmud*.)

Thanks

- Zoubaida Salman (Sur Baher, Husan, Battir)
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