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Solutions for Off Grid Food-Energy-Water in Israel, the West Bank and Jordan








Off Grid Communities

Unfortunately it is a fact that, in the world today,

a staggering 1.3 billion people have limited access

to water, sanitation and electricity.

Many of these people live rural and semi-rural communities.

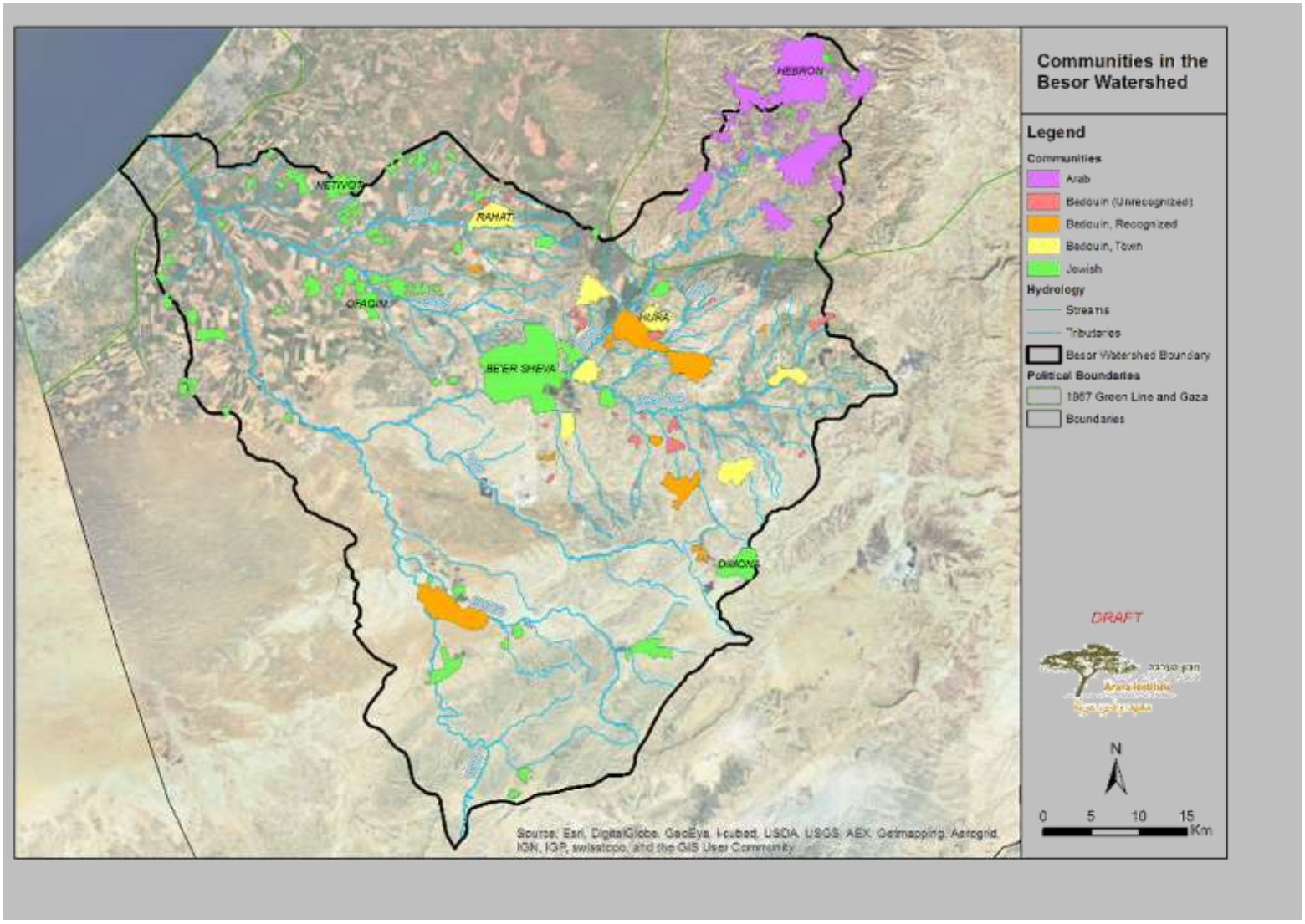
Until such communities have access to efficient water, energy and sanitation services, little progress can be made to develop their economies and improve their lives.

Off Grid Communities

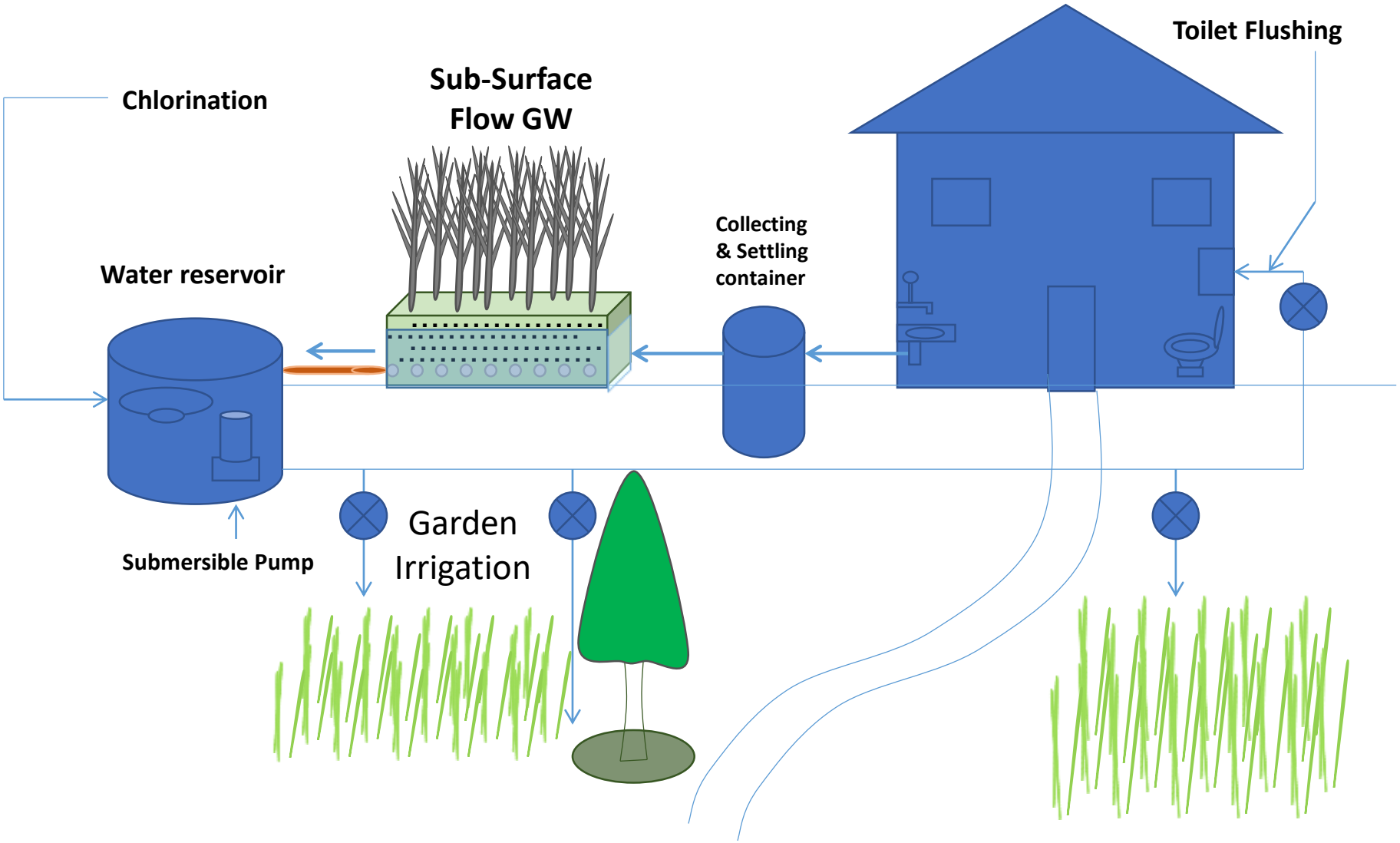
- Around 70% of the Palestinian population in the West Bank
- Approximately 30% of the Jordanian population
- Roughly 50% of the Bedouin population in the Negev, Israel

After R. Waskom, N. Grigg, and M. Akhbari, 2014

Off-grid Communities and Cross Border Complications



Greywater Recycling System for Private Houses



Established Systems

Grey Water Recycling Systems

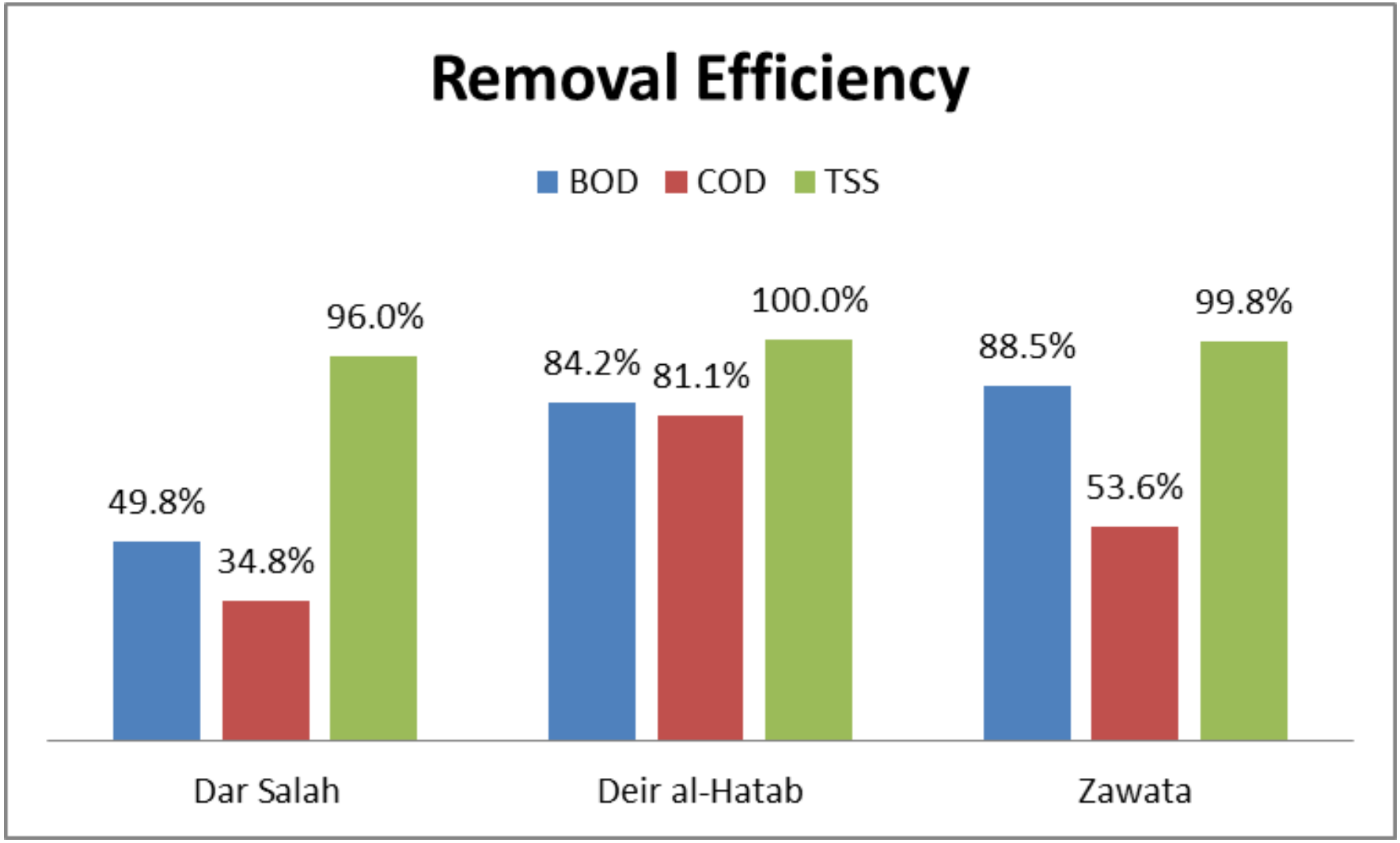
July 22, 2015

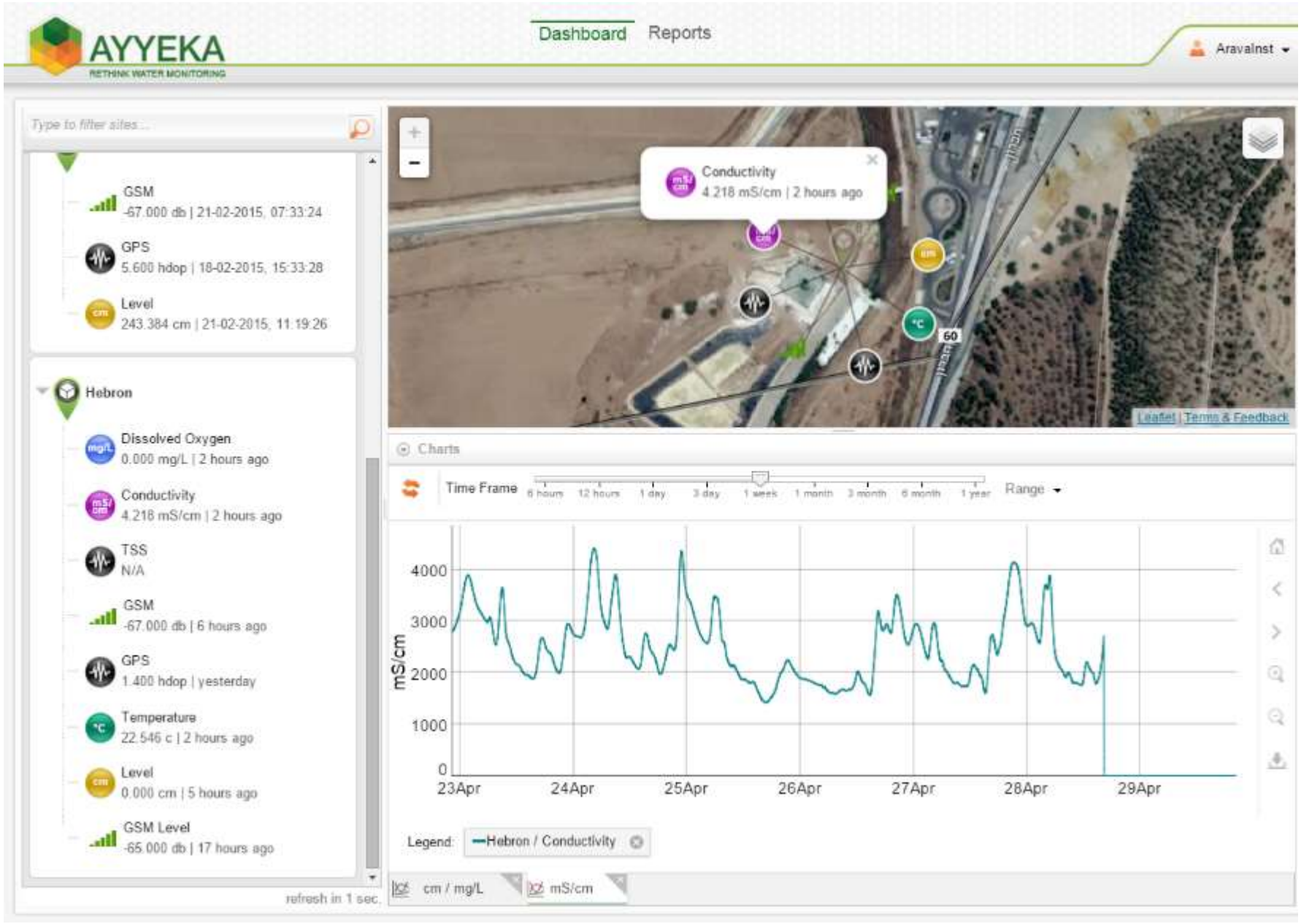
April 5, 2015

May 21, 2015

Halhul Constructed Wetland System

Water Quality Results



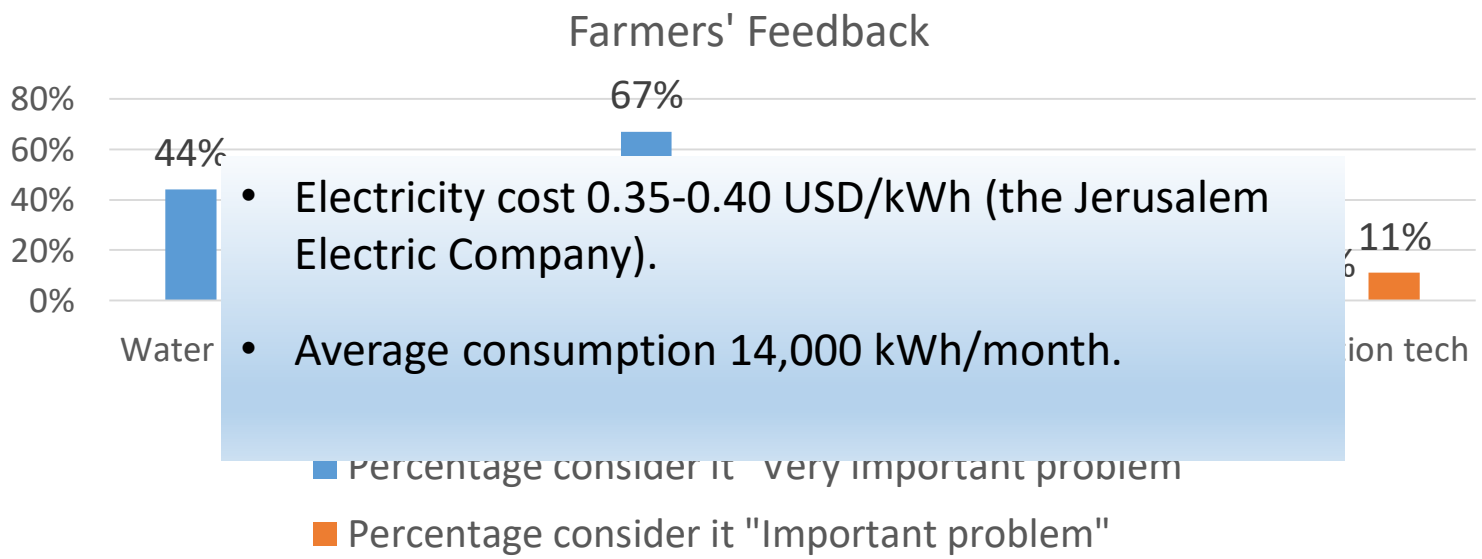

AYYEKA
RETHINK WATER MONITORING
Dashboard
Reports
Aravalnst
Type to filter sites...
GSM
-67.000 db | 21-02-2015, 07:33:24
GPS
5.600 hdop | 18-02-2015, 15:33:28
Level
243.384 cm | 21-02-2015, 11:19:26
Hebron
Dissolved Oxygen
0.000 mg/L | 2 hours ago
Conductivity
4.218 mS/cm | 2 hours ago
TSS
N/A
GSM
-67.000 db | 6 hours ago
GPS
1.400 hdop | yesterday
Temperature
22.546 c | 2 hours ago
Level
0.000 cm | 5 hours ago
GSM Level
-65.000 db | 17 hours ago
refresh in 1 sec
Conductivity
4.218 mS/cm | 2 hours ago
60
Leaflet | Terms & Feedback
Charts
Time Frame
6 hours
12 hours
1 day
3 day
1 week
1 month
3 month
6 month
1 year
Range
4000
3000
2000
1000
0
mS/cm
23Apr
24Apr
25Apr
26Apr
27Apr
28Apr
29Apr
Legend:
Hebron / Conductivity
cm / mg/L
mS/cm

Solar PV Energy to Offset Electricity Cost of Groundwater Pumping

Auja Village

- Dates farmers with a total of land of 420 dunums.
- 100m deep groundwater well.
- Current pumping capacity 50 m^3/hour in 9 months
- Auja water spring is used for 3 months

Community Needs Assessment



- Electricity cost 0.35-0.40 USD/kWh (the Jerusalem Electric Company).
- Average consumption 14,000 kWh/month.

Solar panels from Build Israel Palestine. Uriel Sinai for The New York Times

There is a Great Need for Off Grid Solutions


Nexus of Regional Cooperation
THANK YOU!