Field Research Partnership to Measure Water Quality in Deir El-Zehranı
Water Everywhere and so Little to Drink

- ¾ of earth’s surface is covered by water
- Only about 2.5% of that is fresh water
- Less than 1% of earth’s fresh water is surface water
Water Sources

• Ground water
  (ground water, well...)

• Precipitation

• Surface water
  (Rivers, streams, lakes...)

• Municipal water supplies
Sources of Water Pollution

• Discharge of wastewater and effluents from homes and factories

• Use of pesticides and fertilizers that find their way into the ground water supplies

• Dumping garbage improperly

• Leakage of effluents from landfills
Is this water as clear as it looks?
Is this water safe?

- It looks clear
- It does not have a smell
- It does not have a bad taste
- Is it safe?
Is this water safe?

- It looks clear
- It does not have a smell
- It does not have a bad taste

- Is it safe?

  Not necessarily!!
Must test water to measure its quality
Basic Physical Parameters

• Color

• Turbidity

• Taste and smell
Other Critical Parameters

• Chemical
  – PH, acidity, alkalinity, hardness, dissolved oxygen, conductivity, chemical oxygen demand, nitrates, ammonia...

• Biological
  – Choliforms, pathogens, viruses, helminthes...
Why Test Water Quality?
Why Test Water Quality?
Water Tests

Are usually done on demand in specialized laboratories

OR

Researchers choose to test water quality in a specified area
Relationship between researcher and community
Relationship between researcher and community
Participatory Project
Citizens Engaged in Environmental Monitoring

Questions and answers must come from the people involved in the daily life of the community and directly affected by its issues.
What’s required?

**Day 1**

Workshop on water quality testing

**Day 2**

Water quality measurement
Water Tests

Parameters

Physical
- Temperature, PH, conductivity
- Turbidity

Chemical
- Hardness
- Alkalinity
- Nitrate, nitrite, ammonia, phosphate

Biological
- Total choliforms, E. coli, COD
Water Tests

- Temperature, PH, conductivity
- Turbidity
- Hardness
- Alkalinity
- Nitrate, nitrite, ammonia, phosphate
- Total choliforms

Group 1: 8:30 – 10:30 am
Group 2: 11:00 – 12:30 pm
Group 3: 1:00 - 2:00 pm
Group 4: 2:30 - 3:30 pm
Group 5: At AUB
Measurement Devices
Measurement Devices
Measurement Devices
Do you want to participate?

• Register your name

• Fill the water perception questionnaire