THE URBAN ECOSYSTEM
AS A FRAMEWORK FOR
ENVIRONMENTAL EDUCATION

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The Traditional approach of Environmental Education

On The environment
Take your students to nature

In The environment
Teach them to know it

For The environment
So they will develop empathy
And willing to protect it

Criticism of the Traditional approach

• addresses only student with pre-existing ecological or scientific attitudes.
• Has a deterministic characteristics.
• Creates difficulties in developing the concept of ‘being part of the ecosystem’.
• Natural systems are less available for most of the students.
Development of Environmental citizenship

Ecological literacy

Social literacy

Value awareness

capability

Man is part of the ecological system while, at the same time, is an observer who has the ability to analyze and understand his involvement and to plan in advance for establishing sustainable environment.
City as an Ecosystem

The interaction of the social, biological, and physical components of the city, and the interaction between this system and distance ecosystems that support its existence or that are subjective of its impact.
Urban Ecosystem as an Arena of Environmental Education
Education for...

- Understanding the city as an ecosystem
- Seeing man as an integral part of the system.
- Understanding the dependence of the city on long-distance ecosystems.
- Knowing the ecology of these ecosystems.
- System thinking
- Interdisciplinary thinking
- Spatial thinking
- Temporal thinking
Development of system thinking through
Study of sub-systems within the urban ecosystem

And
Seeing man as an integral part of the system
Standard designing or fitted building
How to solve the problem of youth boredom

A city in the desert!

You certainly ask yourselves what is it?

So I will tell you what is it. It is a terrible place with nothing in it. Only landscape and landscape. In short, it is not a place for youth, only for old people.

They feel that…Hell This place!! I want to leave it!! After army service, like our older brothers, we will ran away from here. We can go to Tel-Aviv, all the world is open, we won’t be stuck in this small place.

(Teachers, Oct. 1999)
Connecting two small settlements (Jan. 2001)

- Family structure
- Youth activity for both settlements
- Health services
- Education groups activity
- Culture events
- Public transportation
- Community in Mitzpe Ramon
- Community in the army base
- Unemployment as opposed to employment
- Army airport: Can give services for Mitzpe Ramon
- Public services
- Taxes benefit
Desert gardening or standard and wasteful gardening
Desert gardening in Mitzpe Ramon (Jan. 2001)

People love “green” near home
- dryness sensitivity
- Plants disease
- Public gardening

Desert environment
- Local and xerophytes flora
- aesthetics
- Saving water
- Privet gardening

Water from the sea of Galilee
- High evaporation
- Demonstration and publicity
- harmful insect
- Rain
- Run-of from the city
From sub-systems

To

Urban ecosystem
**Teacher:** I want to ask you as the delegate of the ran-of group, can you help the group of “optimal design”?

**Student:** I don’t know… this is a city, not an open space… maybe we can recommend on suitable plants… they can also catch the rain.

**Student (optimal designing):** we can use the Wadi within the neighborhood.

**Student (Desert gardening):** maybe we can design the streets in a way that the ran-of will irrigate the gardens…

(Students, 17.01.01)
Understanding the dependence of the city on long-distance ecosystems

On the track of Mitzpe Ramon water supply

A camp near the Sea of Galilee
**Teacher:** An Indian takes care for his environment, but what is his environment? The water came from the nearest river, the food from the forest... what is the environment of Mitzpe Ramon? From where we take our resources?

**Student:** water from the Sea of Galilee.

**Student:** food from all over the world.

**Student:** article of clothing from China.

**Some students together:** that is to say that our environment is the entire globe.

*(Students, 30.08.01, sea of Galilee)*
summing up

• The concept of Urban Ecosystem Have the potential for development of Environmental Citizenship

• System thinking.

• Interdisciplinary thinking.

• Spatial thinking.

• Temporal thinking.

• Seeing man as an integral part of the system.

• Understanding the dependence of the city on long-distance ecosystems.

• Understanding the ecological base of the human existence.

• Knowing the ecology of long distance ecosystems.
Also…

we need to develop suitable tools for evaluate the development of “Environmental citizenship” in all its dimensions.
We are at a turning point in history
Our planetary environment is severely damaged
Desertification is spreading, the globe is warming
Entire ecosystems are under threat
And the city is at the center of the storm of destruction
But that is the key!
We must cease seeing the city as a problem
We must see the city as the solution
For the city is our home
It is what we make it to be
It is where we live
If we fail to seize the future
We will consumed by the past
The future begins NOW!

(From the Charter of Calcutta, 20th, November, 1990)