## Soil awareness raising in Slovakia



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# Methods and/or what was done on the topic: soil awareness raising

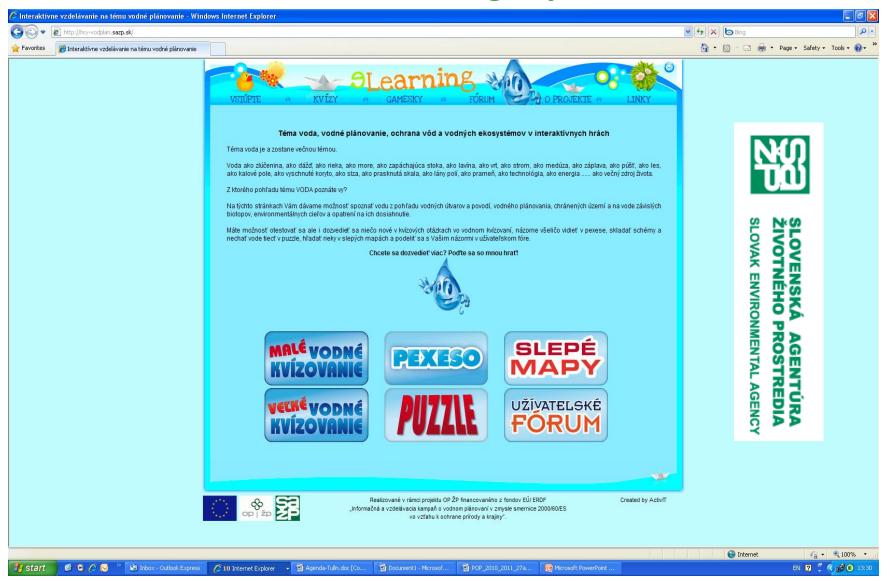
### Indirect activities

- formal and non-formal education: environmental awareness raising, natural sciences
- exhibitions, e.g. biodiversity protection
- research projects dealing with environmental awareness raising

### Direct activities

- organizing quizzes
- painting competitions for the topic soil, or soil as an integral part of the environment
- formal and non-formal education: directly dealing with the soil topic

# Non-formal education: environmental awareness raising – part water



## Research projects – indirect activities

• LIFE is the EU's financial instrument supporting environmental and nature conservation projects throughout the EU, as well as in some candidate, acceding and neighbouring countries. Since 1992, LIFE has co-financed some 3115 projects, contributing approximately €2 billion to the protection of the environment.

Non-formal education: Ecological footprint



## Non-formal education: Envirootázniky - Enviroquestion marks



- Olympiad for pupils on second level of primary schools
- Aim: awareness raising for environmental protection including soil and propagate interest in environment before deciding for the type of secondary school



## **Exhibitions: Slovak National Museum (SNM)**

- Since 2006 is in SNM part Natural Sciences Museum in Bratislava the exhibition: Miracle of Nature – Biodiversity of Earth.
- Different parts of the environment: alived and non alived nature in different parts of the Earth – polar regions, tundra, tropic forests, grasslands, deserts, coral reefs, coastlines, etc.
- Diversity of microorganisms, animals and plants
- Different ecosystems
- The main idea of the exhibition: for people it is very important that all organisms, ecosystems and parts of environment will be preserved

## Non-formal education - ProEnviro

### ProEnviro - since 2005

- The competition: The best environmental project organised by the school
- The main aim: propagation and support of projects dealing with sustainable development. To increase the interest of pupils and teachers in their school, environment around the school, to educate children how to deal with protection of environment practicallyt.
- Who can take part: kindergartens, primary and secondary schools. Winners obtain financial support for realisation of their project.

## Model of sustainable development of mountains areas - Green Mountain

### Name, acronym, code

A Sustainable Development Model for GREEN MOUNTAIN areas (GREEN MOUNTAIN – SEE/B/0012/2.3/X)

### Program

Territorial cooperation 2007-2013, South-east Europe, 2. call

## Priority 2

Protection and improvement of environment, awareness raising

### Area of intervention 2.3

Support of cooperation in management of natural resources and protected areas

## Duration of project

1. January 2011 – 31. December 2013







## TICAD – Tisa catchment area development

The transnational cooperation of local, regional, national authorities, planning and research institutions from all the five countries sharing the territory of the Tisa basin – Hungary, Romania, Slovakia, Serbia, Ukraine

#### The project shall focus on the following specific issues:

- 1. To reduce vulnerability (reasonable use of water resources, **appropriate land use**, adaptation to and mitigation of climate change impacts, better understanding of the actual and potential environmental risks)
- 2. To improve the knowledge of spatial consequences of different measures (mapping of territorial conflicts, tracking the territorial changes in the light of historical processes)
- 3. To improve the physical and functional communication channels (renewal of traditional social networks, improvement of infrastructure system and settlement structure, development of viable polycentrism, revival the transboundary settlement relations, restoration of road and rail border crossings, strengthening of cross-border cooperation, transnational knowledge exchange)
- 4. To harmonize the use of natural and cultural assets (sustainable land-use, water management and **environmental consciousness**, shared responsibility for the Tisa river)
- 5. To agree on the common development goals and promote the efficient allocation of investment funds.



### **SONDAR SK-AT aims**

- To Increase the Value of Soil: an appropriate awareness, combined with a good soil policy will lead to the provision of incentives to make soils more valuable.
- Austria and Slovakia has many experiences in soil protection and on soil monitoring
- Model projects "Interaction of soil and water" may served as demonstration examples in the elaboration of quantitative and qualitative soil conservation aspects of both regions







und Landesrat Dr. Stephan Pernkopt



ODBORNO-NÁUČNÝ ČASOPIS O ŽIVOTNOM PROSTREDÍ



Since 1996

Journal on scientific and educational level dealing with environmental issues

# Ministry of Environment of the Slovak Republic – 5 operational objectives







Integral protection and rational exploitation of waters



Protection against floodings



Protection of air and minimalisation of negative influences of climat changes



Waste treatment



Protection and sanitation of the environment and land

# Ministry of Environment of the Slovak Republic





OO5 operational: Protection and sanitation of the environment and land, part 5.3:

- Improvement of informedness and environmental awareness of the public together with the increase of cooperation of target groups
- <u>I. group of activities</u>: permanent system of environmental education
- <u>II.group of activities</u>:harmonisation of the owners interests with the protection of nature on national and regional level
- III.group of activities: information of specialists and public
- <u>IV.group of activities tivít</u>: propagation materials dealing with actual environmental problems
- V.group of activities: databases available for public, EC and the other international and national institutions
- VI.group of activities: practical programs dealing with the protection of environment, land management and public awareness raising

Act No. 543/2002 Coll. About protection of nature and land

## **Direct activities**

- 1. Soil quiz What do you know about soils
- 2. Painting competitions with the colours of Earth
- 3. Organisins of seminars for public and/or specific groups of public, e.g. gardeners
- The main goal to increase the number of teaching hours dealing directly with the topic: soils and soil's awareness raising



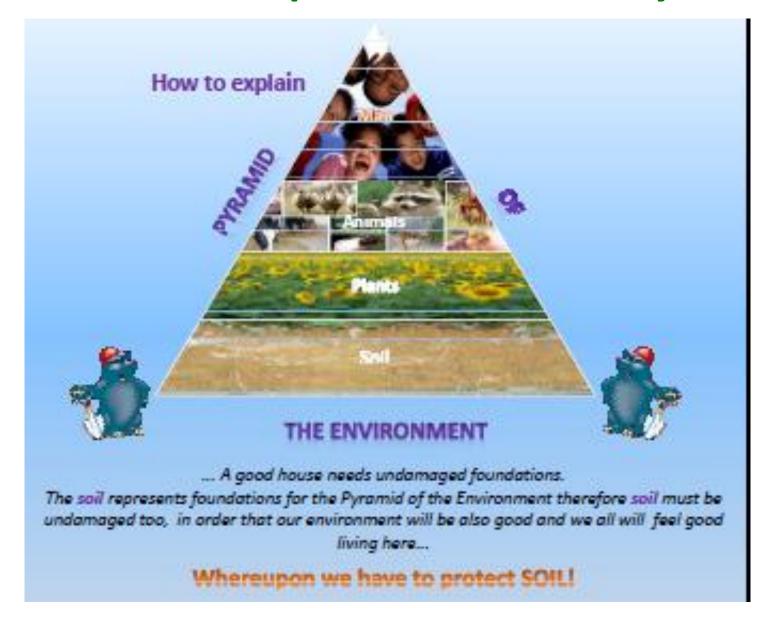


## Soil quiz preparation – direct activity

- Organisers: SSCRI and non profit organisation "The little well"
- Time: The Earth's day 22. April
- Participants: primary schools, both younger and older students
- Topic: What do you know about soils?
- Means of spreading quiz materials and results: Internet



## Soil quiz – direct activity





## Soil quiz questions for younger pupils—direct activity

1. According to you what is soil? (at least 5 sentences)



- 2. Designate 3 animals living in soil.
- 3. Which plants do not belong to the agricultural ones?
  - Sugar beet
  - Winter wheat
  - Spring barley
  - Primula veris
- 4. Which benefits we have from soil (at least 2 examples)
- 5. From which components consists the soil?
  - stones + sand + silt + water
  - stones + sand + silt + water + air
  - stones + sand + silt + water + air + plant's residues
  - stones + sand + silt + water + air + plant's residues + organisms
  - stones + sand + silt + water + air + plant's residues + organisms + clay
  - stones + sand + silt + water + air + plant's residues + organisms +polystyrene

# Soil quiz questions for younger pupils— direct activity

- 6. Look at the picture and tell what is the farmer doing?
  - Ploughing
  - Sowing
  - Loosening
  - Taking the crop

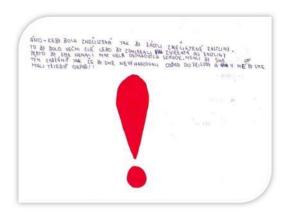
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10. Do you think is it necessary to protect soil and if yes, write why? (at least 5 sentences)



## Soil quiz results – direct activity



... "Yes, we have to protect soil – if it would be contaminated thus contaminated plants will grow on it . This would be very bad because animals and plants would be dying. Therefore we must not have a lot of landfill sites. We can prevent this in such a way that we will not dispose a lot of waste in nature and in towns we have to separate waste"...



... "Soil must be protected. It gives us also oxygen from trees. It gives us: cereals, raw materials and the other compounds. It gives us also harvest. Soil helps also animals and we have benefits from this fact. It is necessary to till the soil. From soil grow up the plants and we have vitamins from them"....



... "We already know: the basic conditions for life on the planet Earth are: sunlight, water, air, SOIL "...



### Soil Science and Conservation Research Institute

### Environmental Consulting Centre "The Little Well"

## AWARD A DIPLOMA





TO: .

For taking part n competition on occasion of Earth Day 2009 within the scope of the programme GREEN LUNGS OF BRATISLAVA

With topic:

What do you know about soils?

## Soil quiz results – direct activity

### **Question:**

Do you think that it is necessary to protect soils?

### **Answers:**

- Yes, plants are growing there and we have vitamins from them.
- Yes, some animals have their houses there.
- Yes, vegetables are growing there and I like them very much.
- Yes, without Soil we will fall out from the world (very young pupil, in Slovak the Soil is synonym to the Earth).
- Yes, also from soil we have oxygen through plants.
- Yes, we just can not live without it, it is part of our environment.
- No negative answer.



## Soil quiz results – direct activity

- Children understand soil
- Children have feeling for soil
- Children understand that protection of soils is important for people, animals, plants and the other parts of the environment
- Our role is to support these ideas and to teach them how to protect soil together with the other parts of the environment



## Future direct activities -



- Period of project: 3 years, from October 2010 to October 2013
- PP2: BOKU University of Natural Resources and Life Sciences, Vienna, Institute for Soil Protection, Dr. Alex Dellantonio, Grad. Eng.
- Extraction of soil colours from regional soils, soil colour painting competition
- Preparation of pigments from soils
- Organizing the painting competition for pupils from schools from touched area – Bratislava + Trnava regions in 2012







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# Just an IDEA (modified premji premji – an Indian poet)

... But, when will be celebrate **International year** of soil?

Agricultural land is reduced to half in the last 100 years and population hiked six fold!

We can make anything now!
We can go anywhere...the Moon.. .Anywhere!
But, can Science and Industry make a handful of soil?

Can Science and Industry make a mouthful of food?

No! Only soil, mother Earth can do that! **EVERY YEAR** is '**THE YEAR OF SOIL**', for we are mere soil...

