

# Sensibly use and carefully protect our Soil in the Danube region

Erwin Szlezak



Soil map of the Danube countries (origin: Austrian East and South-East European Institute, Vienna 1984)

## The mandate to cultivate and to conserve

Already in the creation mandate, the principle of sustainable economic activity is described. Genesis 2:15 reads, we shall "till and keep" the garden.

If we take this seriously, sustainable soil conservation is necessarily connected with agriculture. Soil is and remains the primary base of production of the entire range of economic activity. The example of land grabs in Africa by China and Brazil clearly shows that soil is the decisive and limiting resource upon the Earth. We have the huge mandate to conserve the fertility and functions of soil. On May 13, Governor Dr. Erwin Proell presented the FTI research strategy Lower Austria to a broad public. The topic area of "sustainable agriculture and production optimization" says:

"Also in Lower Austria, soil resources are under pressure through various anthropogenic influences. Among the priority problem areas, there are increasing soil compaction of especially fertile soils in the environment of urban areas and settlements, increasing competition for land between food production and renewable resources and energy sources, respectively, and soil erosion and compaction."

By means of the project "humus management and regional production of organic fertilizer" by the Bioforschung Austria and Alfred Grand, new products for the use of biogenic waste and organic fertilizer shall be developed, as well as measures for sustainable conservation of soil humus and soil quality shall be taken. The use for the Danube region is the anchoring of accounting humus by means of a software-based tool for



sustainable optimization of agricultural cultivation.

A further project of the FTI Lower Austria is "production of raw materials for the processing industry". There is a good approach in the Austrian agricultural environmental programme OePUL, in which way foresighted soil conservation can be effected using measures of land use. Especially the following voluntary measures contribute towards an increase of soil quality: greening measures, system of evergreens, organic agriculture, mulch and direct seeding in agriculture, fruits, vine and hops as a protection against erosion.





#### SONDAR – the Soil Strategy Network in the Danube Region

The province of Lower Austria joined the European Land and Soil Alliance already in 2003. In the year 2007, Lower Austria, as the first province, launched a soil campaign using the slogan "our soil - we stand upon it!", which is dedicated to soil quality as well as an economical treatment of soils.

Today Lower Austria, with 70 municipalities and 15 organizations, has the highest number of members of the European Land and Soil Alliance. The municipalities have a key role in soil conservation, because they can influence the current area consumption through decisions concerning use of land. Starting from Lower Austria, through the Soil and Bioenergy Network of European Countries SENEC (BIENE), also the SONDAR Soil Strategy Network in the Danube Region has come into existence.

In this context, municipalities, together with scientists and implementers, are working on important topics of soil conservation:

- Soil as an indicator of flooding (with SK)
- Measures for the reduction of soil erosion (with CZ)
- Soil as a filter of pollutants and store of carbon dioxide (with HU).

In Lower Austria, the University Research Center Tulln and the Federal Agency for Water Management, Petzenkirchen, have become research centers for soil conservation. In Vienna, the Bioforschung Austria provides for crucial incentives for the greening of land use. The SONDAR network (www.sondar.eu) has established national coordination sites for the European Land and Soil Alliance in the neighboring countries: In the Czech Republic, the municipality of Nova Lhota in the White Carpathians, in Slovakia the VUPOP Soil Science and Conservation Research Institute in Bratislava, and in Hungary the municipality of Mosonmagyarovar.

All EU projects concerning the topic of soil are successfully performed by the lead partner SENEC with their headquarters at Eschenau in close cooperation with the Working Community of the Danube Regions. The sustainability working group of the Working Community of the Danube Regions express their thanks to Franz Rybaczek, Bernhard Kuderer and their SONDAR team for giving the topic of soil a leading position in the Danube region.

# The Alliance against land consumption

The agricultural initiative to focus on land consumption as a topic is especially remarkable. Last year on March 27, the President of the eco-social forum (Oekosoziales Forum), Dr. Stephan Pernkopf, together with President Hermann Schultes, Eng., agricultural councilor, member of the Austrian parliament from the Austrian Chamber of Agriculture, presented the Soil Charter, which is in the stage of implementation this year.

This Alliance is also borne by the Federal Ministry of Agriculture, Forestry, Environment and Water Management, the Austrian hail insurance, the Austrian association of municipalities, the Federal Environmental Agency, the Climate Alliance Austria and further organizations. The Soil Charter has the target to decisively reduce land consumption in Austria.

The slogan "sensibly use and carefully protect our soil" has also become part of the 2014 Soil Charter.





kids in action.

#### 1. Increasing awareness

A broader public must be made aware of the value of soil. Soil must be sensibly used and carefully protected. The various functions of soil shall be conveyed on a broader basis, especially with a view to the 2015 International Year of Soils.

### **2. Improving legal framework conditions**

The federal government and the provinces shall agree on binding targets concerning soil consumption (article 15a B-VG (Federal Constitution Act) agreement between the federal government and the provinces). Furthermore



Soilart with the colours of the earth

the reduction of soil consumption shall be anchored as a target in laws pertaining to soil, and corresponding monitoring shall be provided.

#### **3. Observing soil conservation** in large building projects

In building projects, especially which are subject to environmental impact assessment, soil consumption and loss of soil functions shall be observed and minimized.

## 4. Reviving village centers and using empty space

The inner development of villages, renovation of industrial, commercial and traffic-related disused land as well as the use of empty premises shall be forced by corresponding incentive systems. This shall reduce building in the "open countryside".

#### On the value of soil

Long-term soil conservation can only be successful with an intense participation of young persons. Therefore it is crucial to convey the value of soil clearly and comprehensibly. In this context, the campaign "Our soil - we stand upon it!" has afforded an internationally recognized contribution.

According to the slogan "we protect what we value", in the past years more than 100,000 people have been reached. Most of them are young people, who have playfully and artistically dealt with the topic of soil art.

In all of Europe, pieces of art by school girls and boys have been created by painting with the Colours of the Earth, which visit Europe as a permanent exposition. Trainings of

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multipliers in the topic of soil art take place under the direction of the artist Irena Racek. This is a contribution of "our soil" to the World Soil Day and the 2015 Year of Soils. We owe the slogan "Painting with the Colours of the Earth" to the soil scientist Dr. Michael Pollak from the wpa.

In order to be able to estimate the value of our soil correctly, we must know our soil, too. The Lower Austrian agricultural district authorities - technical department of rural development, have therefore ordered the drafting of a current soil type map of Lower Austria. The Federal Agency for Water Management, the University of Natural Resources and Applied Life Sciences and the Federal Forest Office have for the first time drafted a common map of agricultural and forestry soils. This map is easily accessible as a print version under www.unserboden.at.

On the occasion of the Tulln soil meeting, Brian Oldreive from Zimbabwe has stated the four working principles of Foundation for Farming for the creation of added value:

- on time
- · with the highest standard
- without waste
- · with joy

It is "on time" to recognize our soil as the primary base of production and life, to appreciate the value of soil, and to sensibly use and carefully protect soil.



Opening of the University Research Center Tulln, autumn 2011

#### Soil contact persons, contact in Lower Austria and the neighboring Danube region and friends:

Soil quality and international issues: Erwin Szlezak, Lower Austrian agricultural district authorities - Rural Development Sustainability working group of the Working Community of the Danube Regions, www. unserboden.at

Soil management: Josef Springer, Lower Austrian Chamber of Agriculture www.noe.lko.at/?+Bodenschutz-Duengung+&id=2500,,1294819

Soil & water: Peter Strauss, BAW Petzenkirchen,

www.baw.at/index.php/ikt-home.html

Soil and law: Roland Norer (CH), www.unilu.ch

Soil data and soil research: Walter Wenzel, Tulln University Research Center, University of Natural Resources and Applied Life Sciences, Vienna, www.boku.ac.at/

Soil fertility and greening management: Wilfried Hartl, Bioforschung Austria www.bioforschung.at

Population and municipalities: Thomas Mitterstöger, Energie und Umweltagentur NOe (energy and environmental agency Lower Austria), www.enu.at/angebot-natur-und-boden

Soil as an indicator of flooding: Michael Pollak, Eduard Klaghofer, wpa, www.wpa.at Vermicomposting and production of organic fertilizer: Alfred Grand, www.vermigrand. com

Austrian / international Soil Science Society / soil platform:

Sigbert Huber and Andreas Baumgarten, www.bodeninfo.net

Soil art: Irena Racek, Klemens Rybaczek, www.soilart.eu

European Land and Soil Alliance ELSA: Christian Steiner, www.bodenbündnis.org VUPOP Soil Science and Conservation Research Institute (SK): Jaroslava SobockaÅL, www.vupop.sk

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EKOVIN (CZ): Milan Hluchý, association of ecological and integrated wine-growers, www.ekovin.cz

ZERA – Zemědělská a ekologickáregionálníagentura, Ing. KvětušeHejátková, www.zeraagency.eu

#### Lead partner of all SONDAR projects:

SENEC association (BIENE; Soil and Bioenergy Network of European Countries) Chairmen: Franz Rennhofer, Michael Singraber, Franz Rybaczek) www.biene-netzwerk.at / www.sondar.eu

#### Friends:

Soil map of the Danube countries: Othmar Nestroy www.egam.tugraz.at Foundations for Farming: Brian Oldreive ; www.foundationsforfarming.org Greenway Training Grow Food Nature's Way: Ron Gilchrist; www.green-way.org.uk





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