

2015
International
Year of Soils



International Year of Soils

Achievement report

Prof. Dr. Rainer Horn/Germany

Soils are endangered worldwide: what to do?



Content

- 1) Introduction
- 2) Declaration of the UN Dec. 2013
- 3) Status quo: Trends and analyses of soil threats
- 4) Symposia in 2015
- 5) Signed declarations
- 6) Post 2015 activities

International Decade of Soils 2015-2024

...and, where do we go????

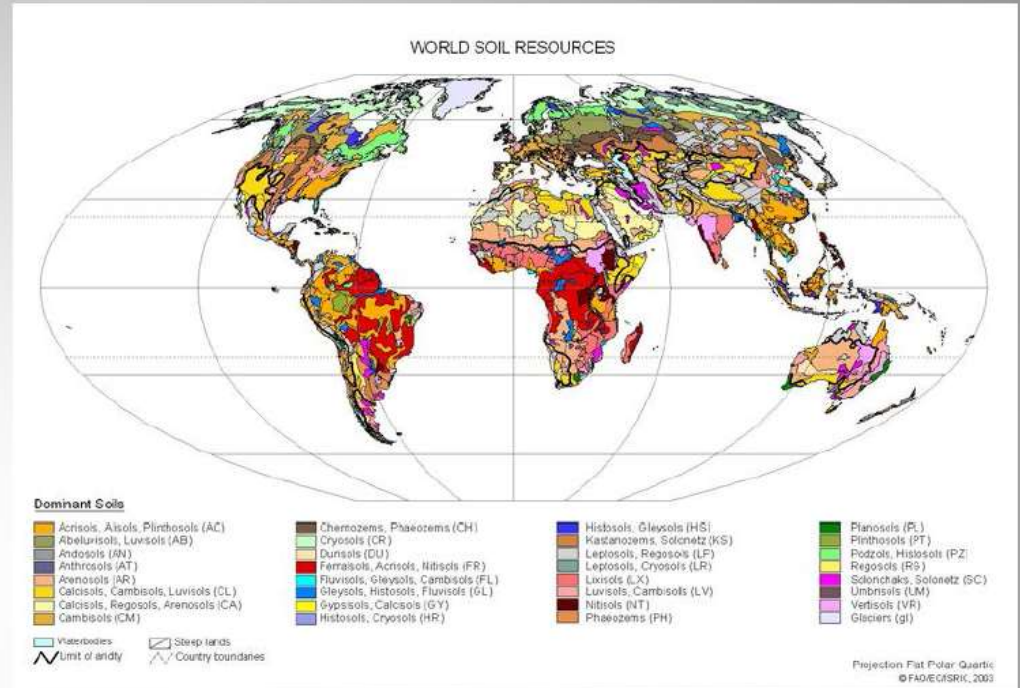


UKRAINE
The largest market in Eastern Europe

Enough **black soil**
to grow food for the
WHOLE WORLD








InvestUkraine.com

Lufthansa Magazin 2013

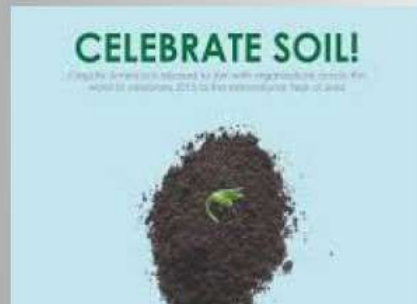


The Problem of Land Grabbing

ITPS Report: Status and Trends of Soil Threats by region

Region	Soil erosion	Organic carbon change	Nutrient imbalance	Salinization	Soil sealing	Loss of biodiversity	Soil pollution	Acidification	Compaction	Water-logging
 Sub-Saharan Africa	Poor ↘	Poor ↘	Poor ↘	Fair ↕	Good =	Fair ↘	Good ↘	Poor ↕	Good =	Good =
 Asia	Poor ↘	Poor ↕	Poor ↘	Poor ↕	Poor ↘	Fair ↕	Poor ↘	Poor ↘	Poor ↘	Fair ↘
 Europe and Eurasia	Fair ↗	Poor ↕	Poor ↕	Poor ↘	Poor ↘	Fair ↘	Poor ↗	Poor ↕	Fair ↕	Fair ↕
 Latin America and the Caribbean	Poor ↘	Poor ↘	Poor ↘	Poor ↘	Fair ↕	Poor ↘	Fair ↕	Fair ↕	Poor ↘	Fair =
 Near East and North Africa	Very Poor ↘	Poor ↘	Good ↕	Fair ↘	Very Poor ↘	Poor ↘	Very Poor ↘	Good ↕	Poor ↘	Good ↕
 North America	Fair ↗	Fair ↗	Poor ↘	Good ↗	Fair ↘	Good ↕	Good ↗	Poor ↘	Fair ↕	Good ↕
 Southwest Pacific	Fair ↗	Fair ↕	Fair ↘	Good ↕	Good ↘	Good ↕	Good ↗	Fair ↘	Fair ↕	Good ↕

we speak about soils? !!!



But the convincing arguments for the public, politicians must be simple, short, and repeated continuously!





To study soils you need to dig a pit:

International Field Course and Soil Judging Contest



Soil monolith expedition to the Olduvai Gorge,
the cradle of mankind



We need to educate and to fascinate people for soils worldwide starting from the Kindergarten up to the professionals and public as partners to counteract or avoid further soil degradation



IUSS, Hungarian Soil Science Society, Soil Science Society of East Africa, Sokoine University Tanzania, Kenyatta University Kenya, Szent István University

భారతీయ వరి పరిశోధన సంస్థ

International Year of Soils (2015)
Healthy Soils for a Healthy Life

SOIL HEALTH CARD

Farmer's Details

Name (పేరు)
Address (మోసానామె)
Village (పట్టణం)
Mandal (మండలం)
District (జిల్లా)
PIN (పిన్)
Aadhar Number (అదార్ నంబర్)
Mobile number (మొబైల్ నంబర్)

Soil Sample Details

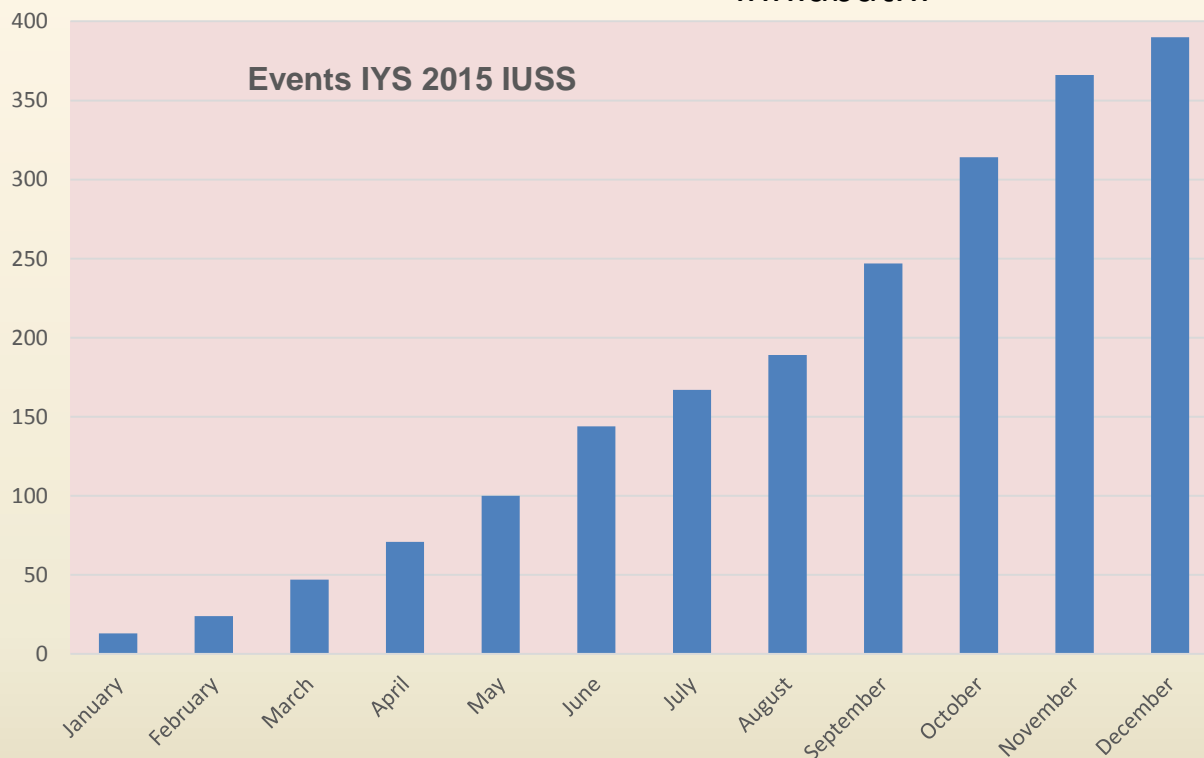




Bangkok



International Year of Soils - back to where it started in 2002



International Year of Soils - Meetings in 2015 (examples)



Inauguración Honduras



Pretoria/ South Africa



Nanjing



Natal/Brazil



Seoul/ South Korea



San José/ Costa Rica



Amsterdam

Further meetings (amongst others)

Berlin (GSW), Stellenbosch, Kiel, Göttingen, Texas, Montevideo, Havana, Krakow, Minnesota, Chongqing/China, Timesoara, Kharkiv, Paris, etc.





2015

2015

International
Year of Soils

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Additional Declarations were signed (prepared) in Amsterdam, Tegucigalpa/Honduras, Stellenbosch, Harbin/China: Delving deeper into Mollisols for food and environmental security etc.....

**Vienna Soil Declaration 2015 :
Soil matters for humans and ecosystems**

sustainability that runs the country, in terms of programs and budgets
• Valuing ecosystem goods and services that soil provides to the sustainable developmente

Rica
Board of the Costa Rican
Association of Soil Science

धरती



1. **Presentation of the Soil of the Year in various countries: 5.Dec.**
2. **Documentation of soil topics on the IUSS homepage**
3. **Interviews, journal articles and soil lectures for the public, politicians, and in schools,**
4. **Preparation of Books (amongst others):**
S.Nortcliff (ed) 2015: Task Force - Soil Matters, Catena Publ.
Kutilek M., Nielsen D.R. 2015. SOIL: The Skin of the Planet Earth.
Springer Science
Blume, H.P. and Horn, R. 2016: Soils, stamps and ecological functions
(in German) in final preparation
5. **Distribution of soil brochures, soil games, plats, stickers, ballons, sets**
6. **Stimulus Fund (about 12500\$ in 2015)**
7. **Extension work- cooperation with and sponsoring of IUSS through companies (e.g. UGT, Müncheberg – silk street award, adjusted equipment)**
8. **.....**



Summary and outlook:

We have achieved an amazing momentum in the awareness of soils as one of the world's most valuable natural resources.

We need to continue spreading the word through involvement in activities during the coming

**International Decade of Soils
2015-2024**



our Soils under threat

But we need to find

Solution:
sustainable soil
management

We are
aware of

Drivers of soil
degradation

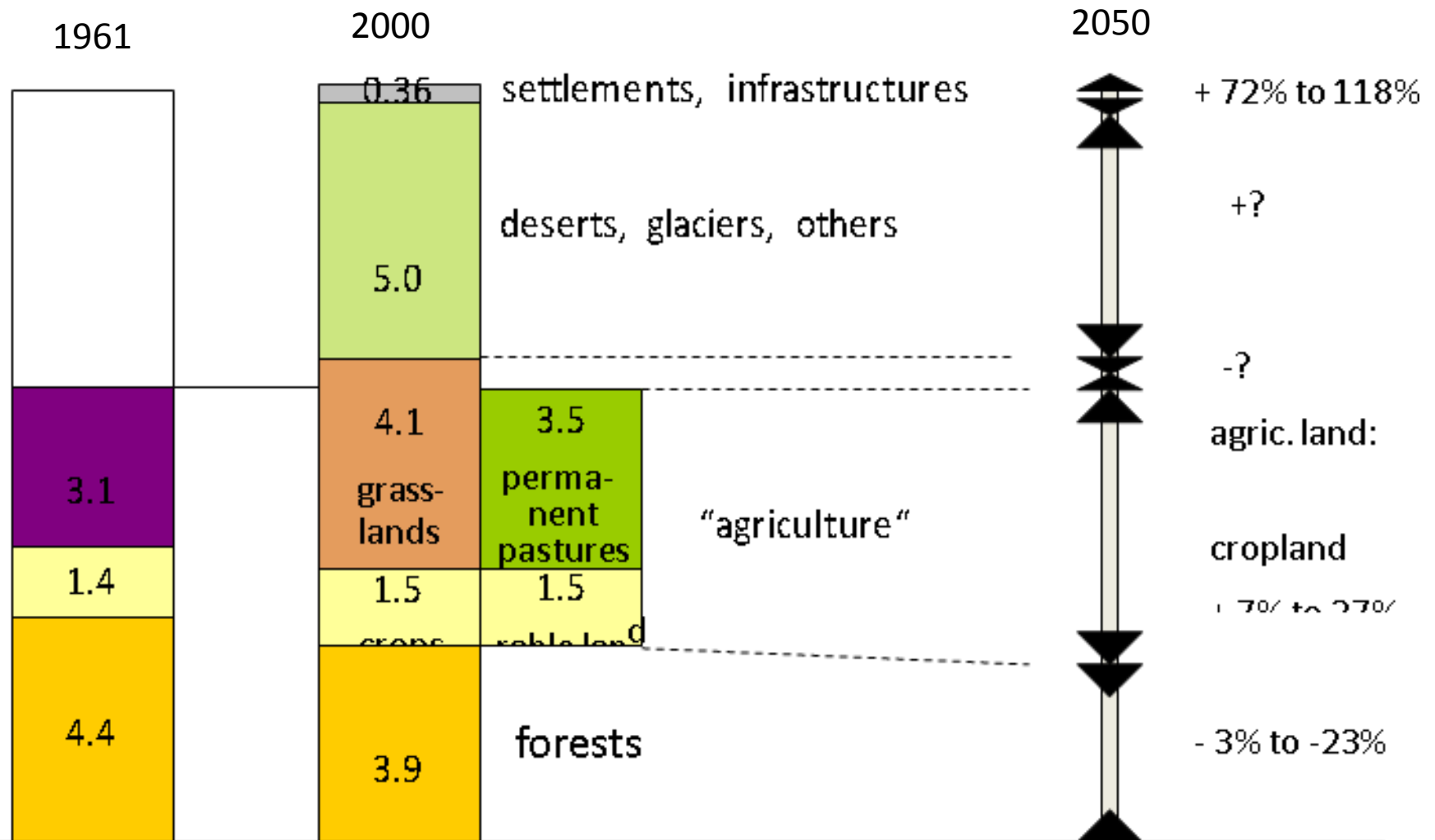
Types of soil
degradation

Consequences
of soil degradation



Many thanks for your attention

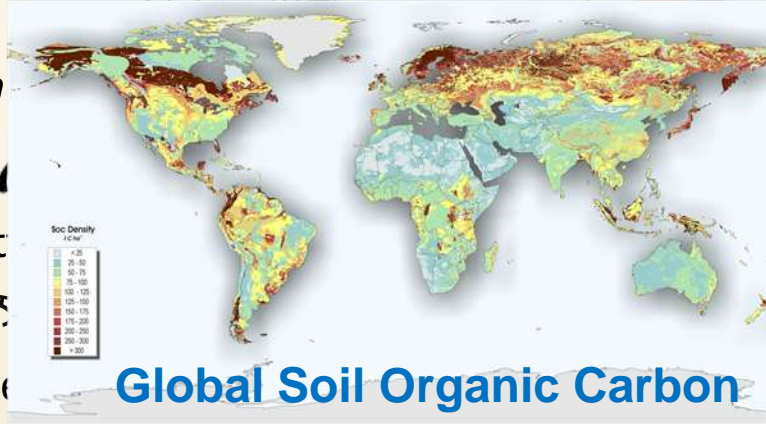
Land use change: increasing competition for fertile soils



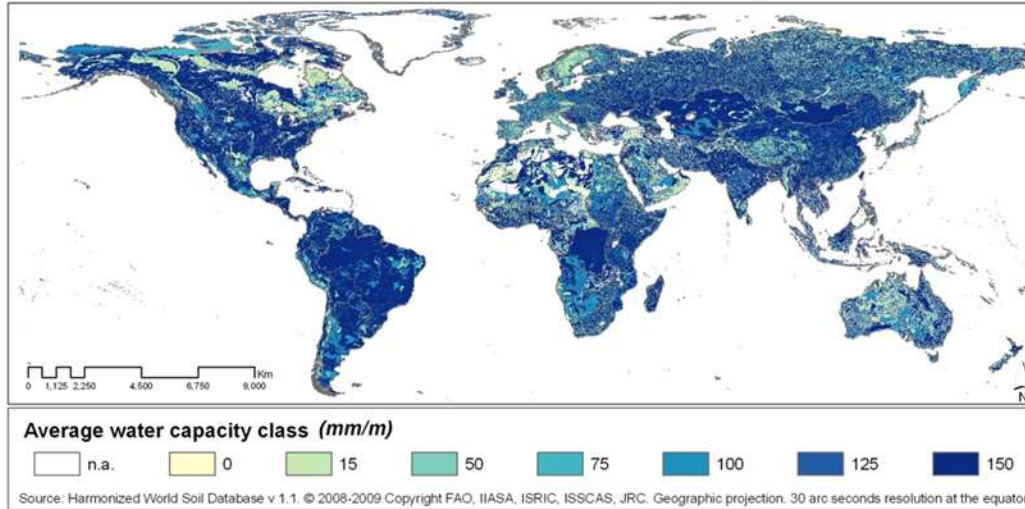
Sources: Benedikt-Kemp et al. 2002, MEA 2005, GEO 4, OECD (2008)

Essential Soil Topics (COP 21, Paris)

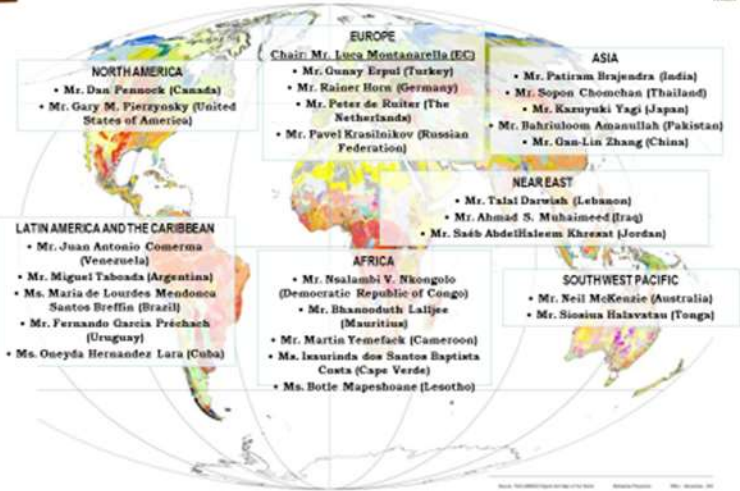
2015
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Available water capacity



THE 27 SCIENTISTS MEMBERS OF THE ITPS 2015-2017
Proposed by GSP Partners and nominated by FAO Members



मिट्टी
ज्यामी
земля
tanah
jord
토양
土



tla
solo
gleba
التربة
yokutshuna
அரிசி
zemlja
тепел
மண்வெட்டி
धरती

Soils - Food-Water-Land -Energy Nexus-

Soils and their properties are the most necessary components

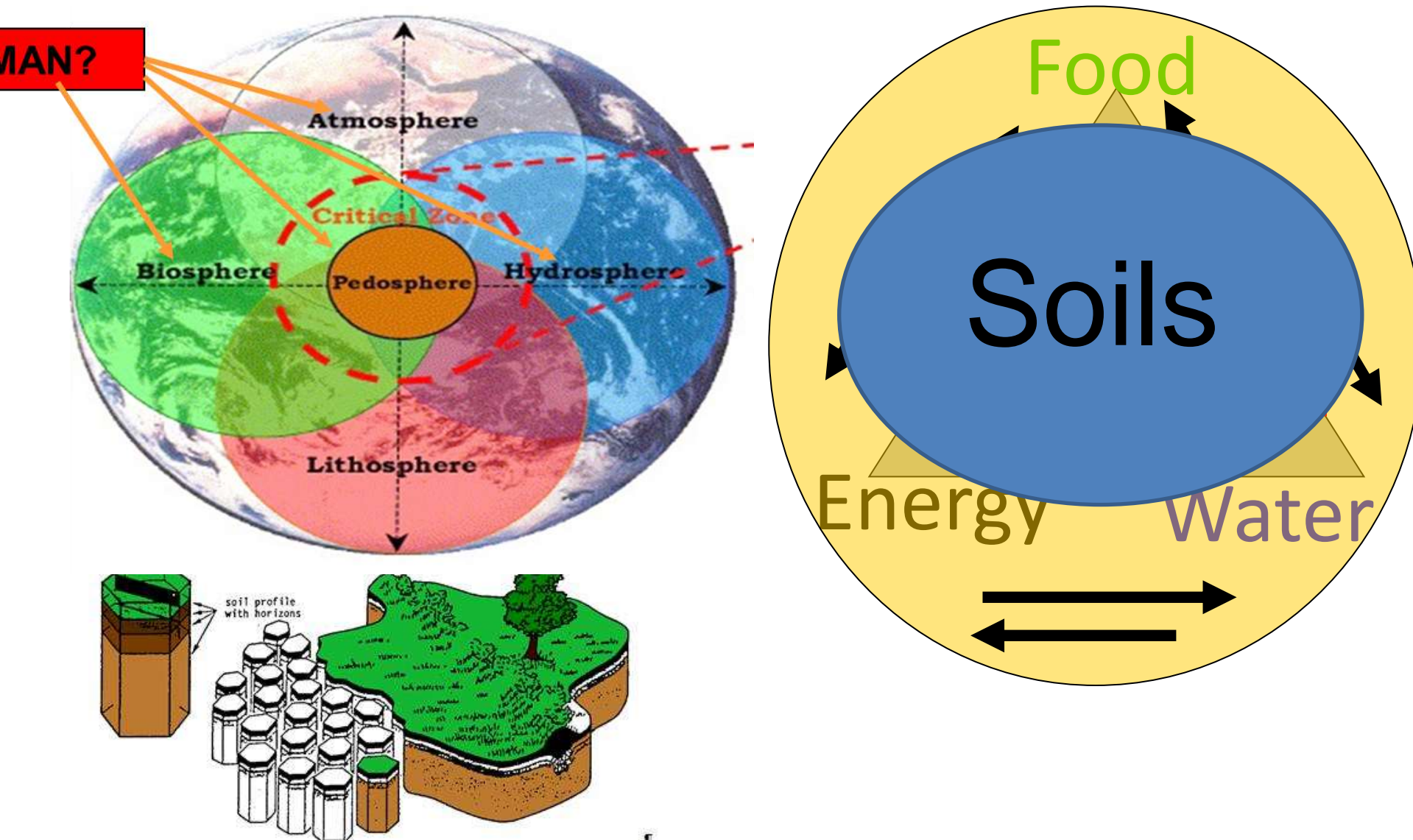
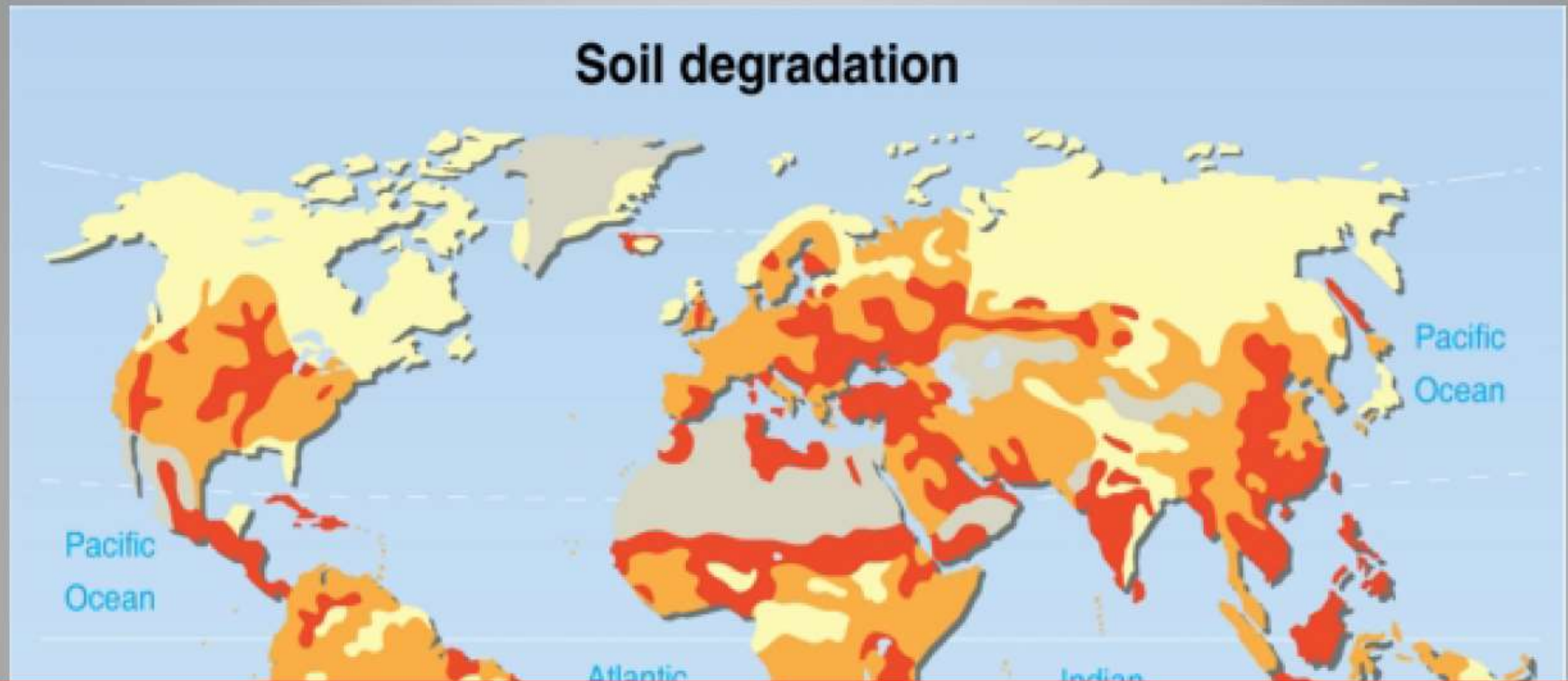


Figure 1: Land surface (right) with soils as most important land components (left)

Soil degradation: where are the most urgent areas?



1) in principle everywhere !!

2) more than 1,5 Mrd. people

**3) 2,6 Mrd. persons live directly from agriculture but
52% on degraded land**