

**ASSESSMENT OF DAMAGES CAUSED BY THE  
DROUGHT  
IN AGRICULTURE, ENVIRONMENT AND  
WATER SUPPLY**

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# DROUGHT

is dominantly *related*  
*presented*  
*discussed*

**as parameter of soil**

**MAINLY IN AGRICULTURE IS DROUGHT EVALUATED AS  
LACK OF WATER IN SOIL-simply-LOW WATER SUPPLY  
FOR AGRICULTURAL PLANTS**

# THEREFORE

mainly in agriculture

are broadly implemented measures focused on  
regulation of soil moisture

*by*

SOIL IRRIGATION (in Slovakia 310 th. ha)

SOIL DRAINAGE (in Slovakia 450 th. ha)

SOIL USE PRACTICE (as many)

(total area of agricultural soil in Slovakia is about 2400 th. ha)

# SOIL

is important reservoir of water in nature  
MAINLY INSIDE OF RAIN FEED TERRITORIES  
and is body protecting nature against flooding  
MAINLY IN CASE OF HEAVY RAINFALLS

## SOIL FUNCTIONS

„Recomendation of EU No.R(92)8“

**1.SAFE OF WATER**

**2.PROTECTION AGAINST WATER**

# IMPORTANT IS

water balance in territory

*for example in Slovakia*

total annual rainfall is **33,8 billions of m<sup>3</sup>**

*from that* **11 billions of m<sup>3</sup>** is kept in the soil

# PROBLEM IS

Water holding (retention) capacity of soil  
is decreasing !!!

*Due to:* soil compaction (in Slovakia 800 th.ha)  
as result of no correct agricultural practices, heavy machines use  
and soil sealing,  
simply due to lower infiltration of water into the soil

## RESULT IS

- Lower infiltration of water into the soil
  - Lack of water supply for agriculture
    - Lower yields
- Higher vulnerability of territory to flooding, etc.

# NEW BROADER TERRITORIAL APPROACHES WE NEED TO USE FOR THE FUTURE

## HIGHER WATER RETENTION IN SOIL WE NEED MAINLY

How to do it?

- Soil parameters improvement by agricultural practice
- Subsoiling by cultivation to higher dept (0.5-0.6 m)

(this measure brings into the Slovakian soil profile approximately about  
**100 millions of m<sup>3</sup> water more**)

# WHO MUST DO IT

FARMERS

*or special service for farmers*

# WHO MUST PAY IT

FARMERS

with help of agricultural subsidies

(every national ministry of agriculture in EU can support it from EU subsidies)



WHO WILL HAVE PROFIT FROM THAT

AGRICULTURE

ENVIRONMENT

WILLAGES

NATIONAL ECONOMIES

(seems to be that all people)

THANK YOU

*for now*

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