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 m3

from that 11 billions of m3 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 m3 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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