



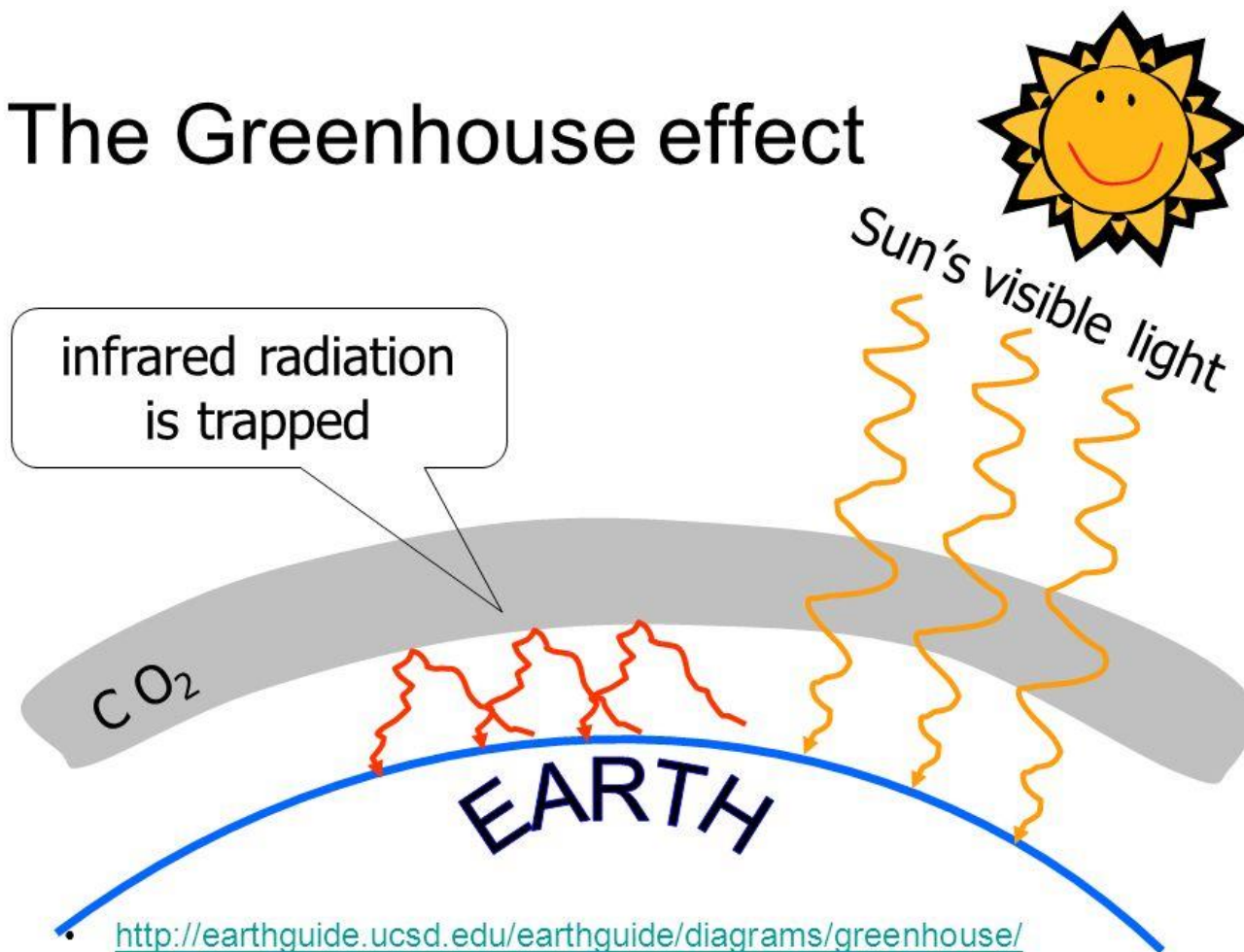
SLOVENSKÁ AGENTÚRA
ŽIVOTNÉHO PROSTREDIA

Mitigačný potenciál starostlivosti o krajinu voči nepriaznivým dôsledkom klimateckej zmeny



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www.sazp.sk

The Greenhouse effect



Human Sources of Greenhouse Gas Emissions

CO₂ carbon dioxide

Mainly from energy
Also cement making
& deforestation



CH₄ methane

Mainly from livestock
and rice paddies

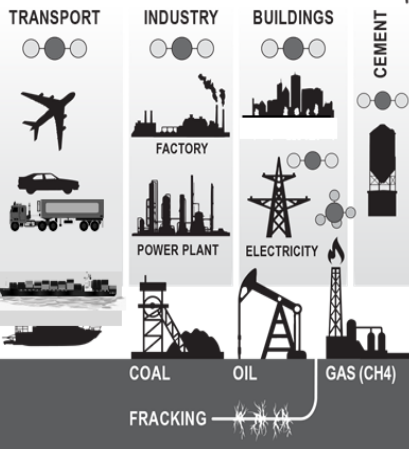


N₂O nitrous oxide

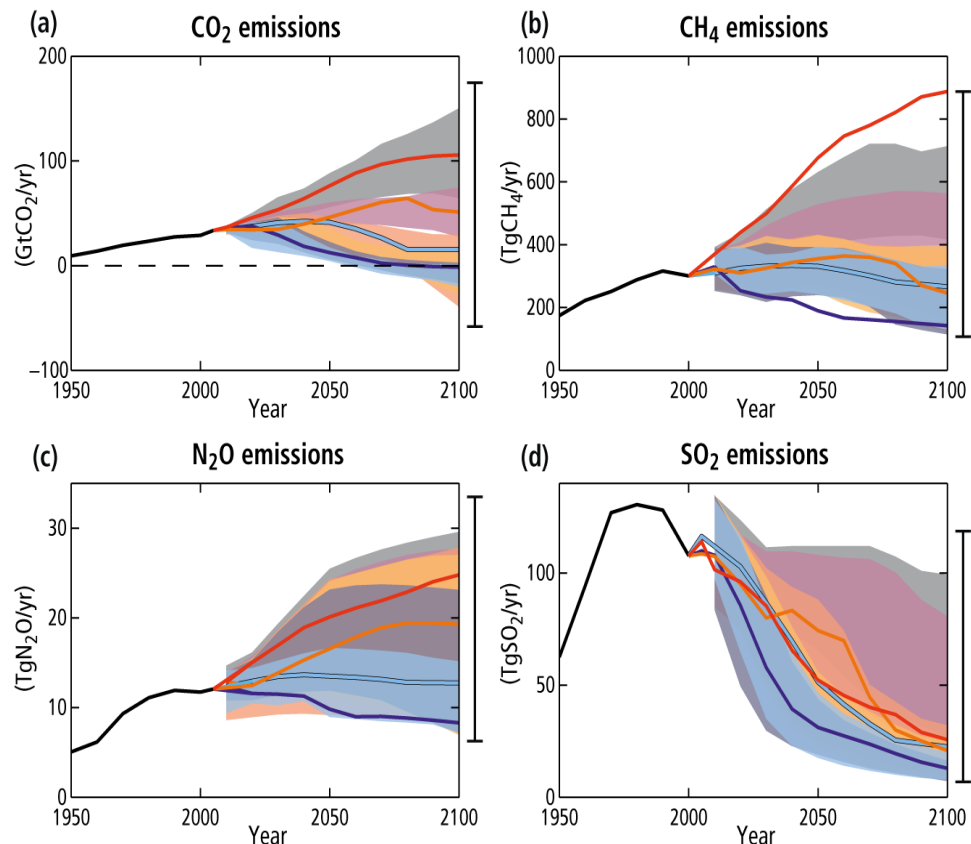
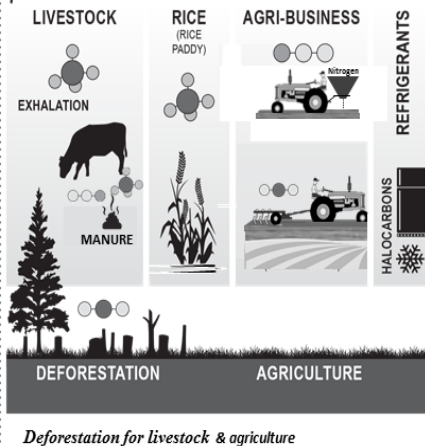
Mainly from nitrogen chemical fertilizer
Also livestock waste



Energy Production & Use

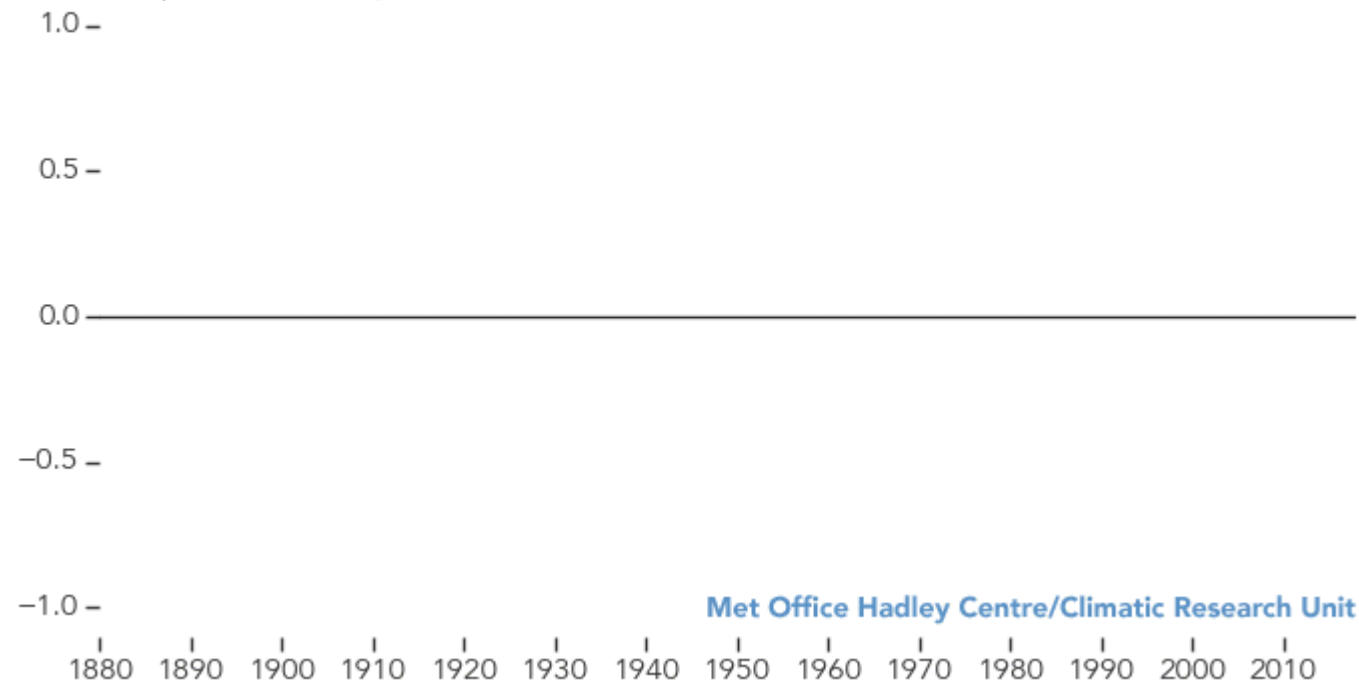


Food Production & Supply

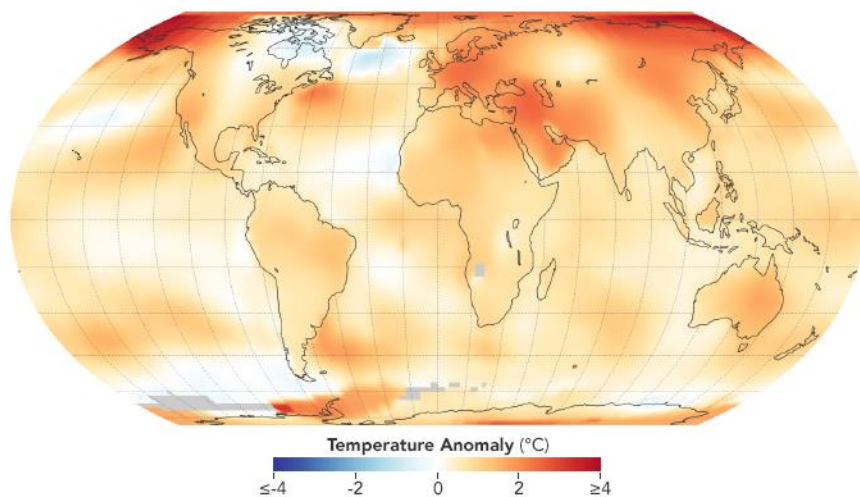


A World of Agreement: Temperatures are Rising

Global Temperature Anomaly (°C)



Životní prostředí - prostředí pro život, Průhonice, 12-13.6.
2018



Životní prostředí - prostředí pro život, Průhonice, 12-13.6.
2019

IPCC 2013

CO₂

400ppm

450ppm

550ppm

650ppm

750ppm

T

1°C

2°C

3°C

4°C

5°C

Agro

Rast úrod v
severných
oblastiach

Výskyt hladomoru v Afrike
(Sahel) a SW Ázii +25-60% do
2080

Celosvetový pokles úrod

Voda

Strata horských ľadovcov

Nedostupná voda najmä v Afrike
Ohrozených viac ako 1mld ľudí

Topenie kontinentálnych
ľadovcov, oceán pohltí atoly a
ohrozuje Shanghai, Tokyo...

ES

Strata koralových
ES

Strata funkcií Amazónskeho pralesa

Nevratné zmeny ostatných terestrických
ekosystémov

Strata biodiverzity (20-50%)

Extrémy

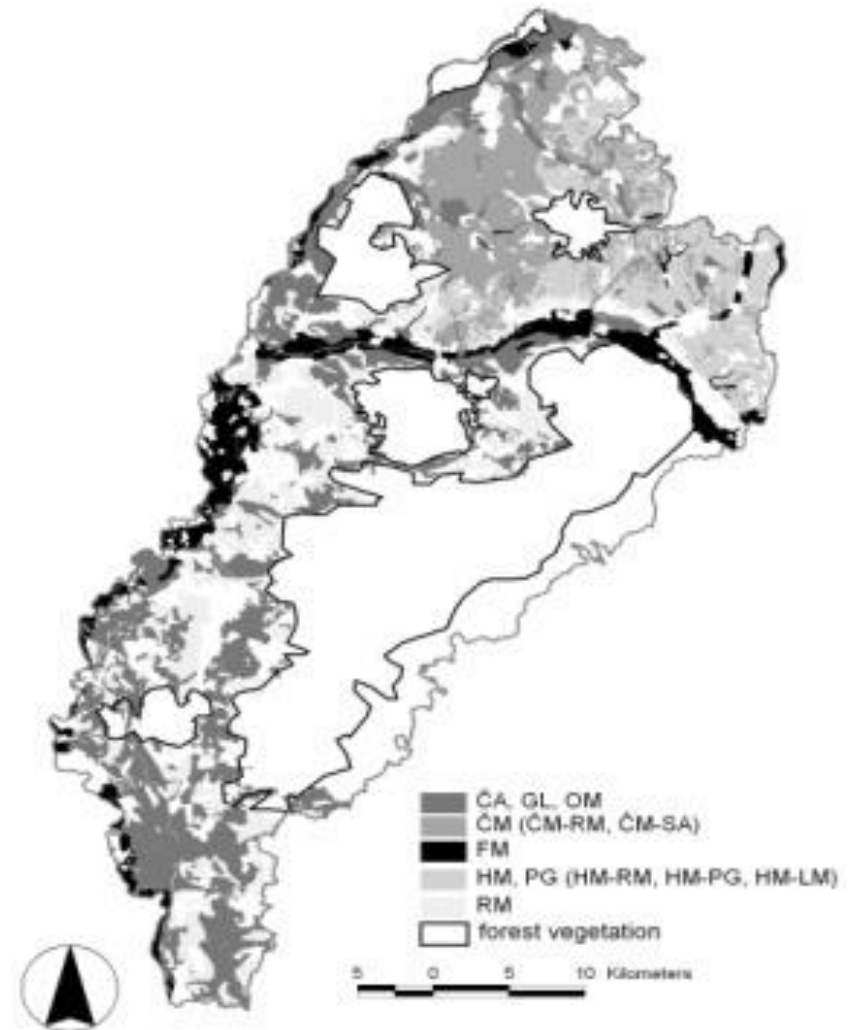
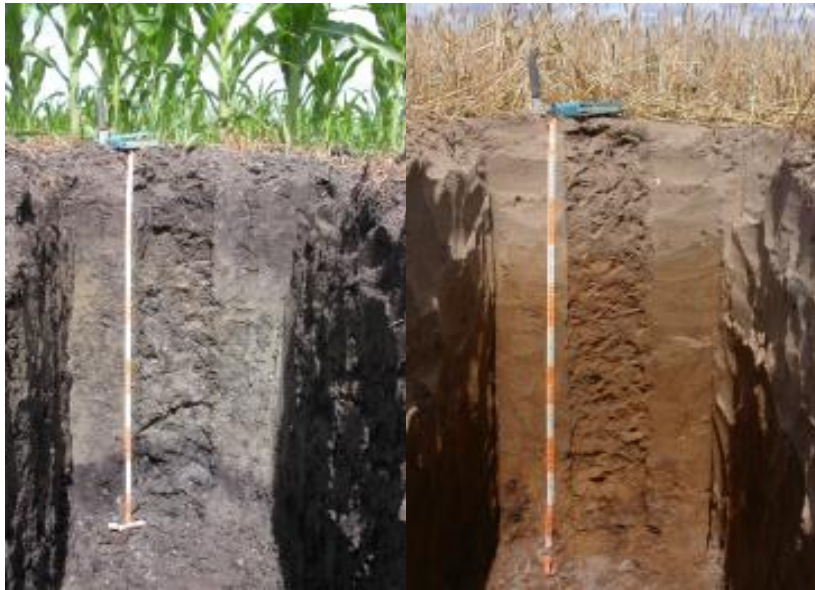
Dezertifikácia, požiare, záplavy, hurikány, vlny hurúčav

Nezvrtné zmeny
klimatického systému

Strata schopnosti pôd zachytu uhlíku,
rozvrat Atlantického THC, uvoľnenie metánu s permafrostu

Význam pôdy pri mitigácii KZ

- 1 inch of soil to form: takes 100s to 1000s of years
- It is a living highly structured low-entropy system
- **Soil conservation = direct negative feedback to global warming**



Význam pôdy pri mitigácii KZ

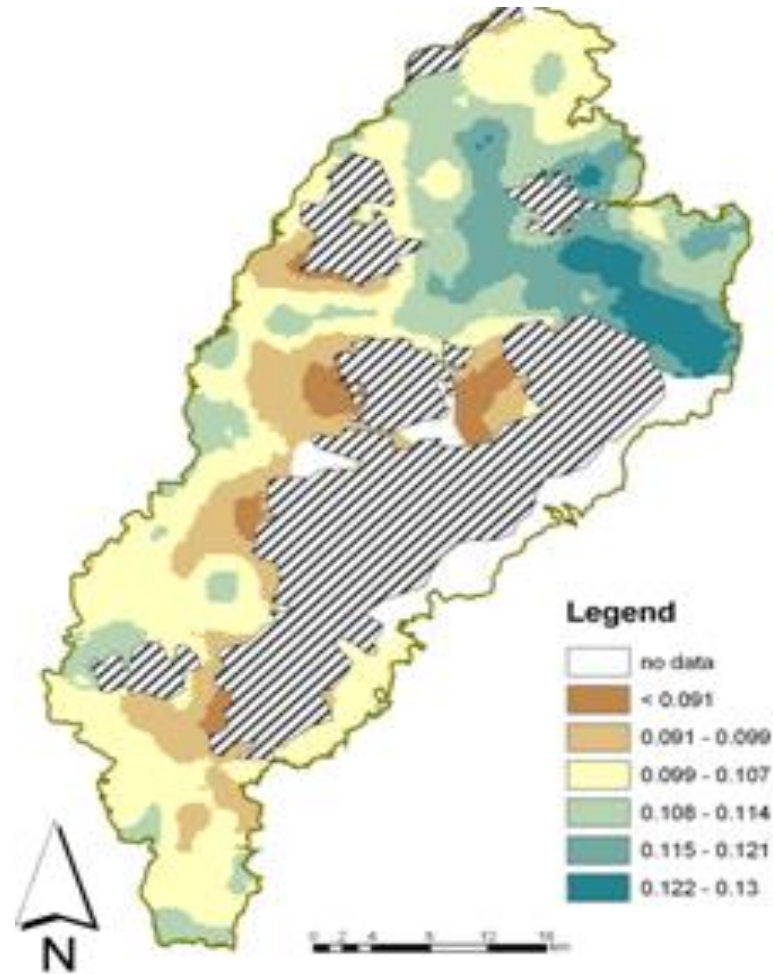
- GW – 10 mil km³, surface waters – 110 000 km³
- Soil water – 16 000 km³
- Soil = third water resource, extremely susceptible to CCH
- SW = the only water to sustain terrestrial ecosystems
- SW = the only water to keep the energy and matter balance within ecosystems

soil water content of limited availability



0 15 30 Miles

Legend
Ordinary Cokriging_4
Prediction Map
[Regr_kriging_TH1a].[qla]
Filled Contours
0,163 - 0,168
0,168 - 0,174
0,174 - 0,182
0,182 - 0,192
0,192 - 0,205
0,205 - 0,221
0,221 - 0,242
0,242 - 0,268
0,268 - 0,301
0,301 - 0,343

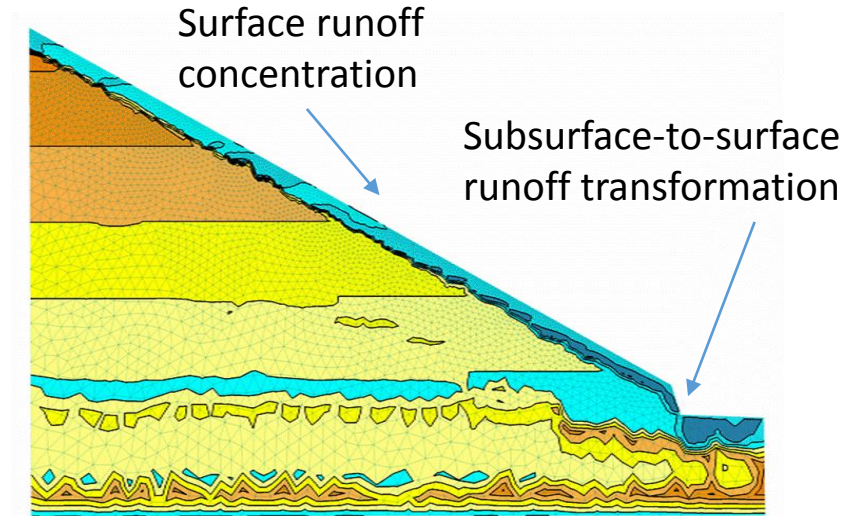


N

0 2 4 6 8 10 12 14

Význam pôdy pri mitigácii KZ

Soil degradation

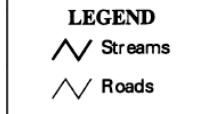


EXTREMELY HIGH
(4.7+ mi./sqmi.)
Upper Coeur d'Alene 0406
Actual Density 10.85 mi./sqmi.

ROAD DENSITIES

By ICBEMP SubSample Watersheds

VERY LOW
(.02-.1 mi./sqmi.)
Example
Actual Density .08 mi./sqmi.



HIGH
(1.7 - 4.7 mi./sqmi.)
Methow 11
Actual Density 2.06 mi./sqmi.

MODERATE
(.7-1.7 mi./sqmi.)
South Fork Salmon 1501
Actual Density 1.34 mi./sqmi.

LOW
(.1-.7 mi./sqmi.)
Methow 56
Actual Density .3 mi./sqmi.

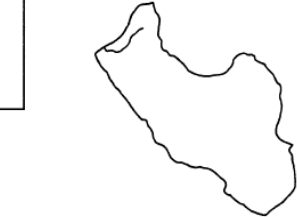
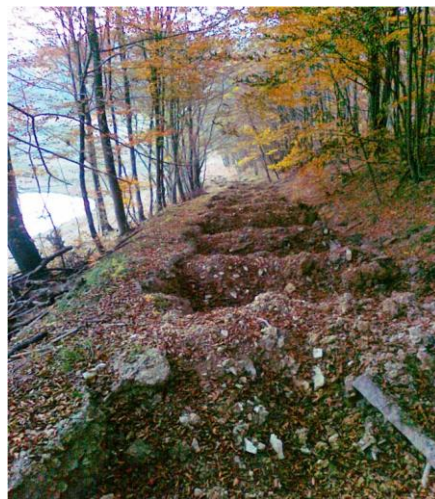


TABLE 2 INVENTORY OF LANDSLIDES LARGER THAN 281 m³ AND SITE CONDITIONS PRIOR TO FAILURE IN 16 REDWOOD CREEK TRIBUTARY BASINS (MODIFIED FROM PITLICK, 13)

	UNLOGGED ¹	LOGGED			
		ROAD-RELATED ² FAILURES	CLEAR-CUT		SELECTION-CUT TRACTOR-YARDED
			TRACTOR-YARDED	CABLE-YARDED	
Number of slides larger than 281 m ³	222	109	47	46	37
Total volume of sediment delivered (m ³)	429,900 m ³	749,800 m ³	379,200 m ³	290,200 m ³	152,400 m ³
Average slide volume	1,900 m ³	6,900 m ³	8,100 m ³	6,300 m ³	4,100 m ³
Percent of total inventoried slide volume	21.5	37.5 m ³	18.9	14.5	7.6



**Čo robiť?
Kto je zodpovedný?
Kto je kompetentný?**

Low carbon economy

zodpovední všetci

kompetentní politici

Degradácia/obnova krajiny

zodpovední všetci

kompetentný rezort PH+samosprávy

Adaptácia voči KZ

zodpovední všetci

kompetentný rezort MŽP





Ďakujem za pozornosť
Thank you for your attention