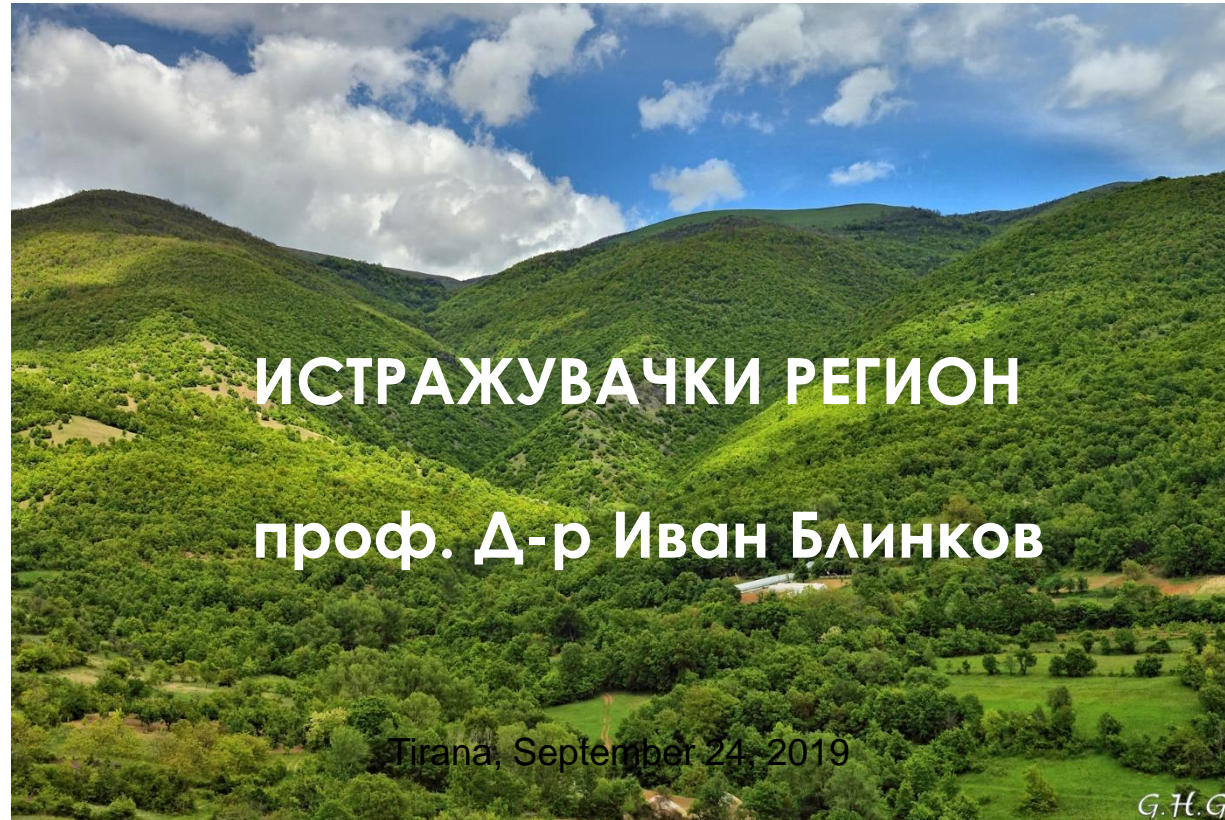
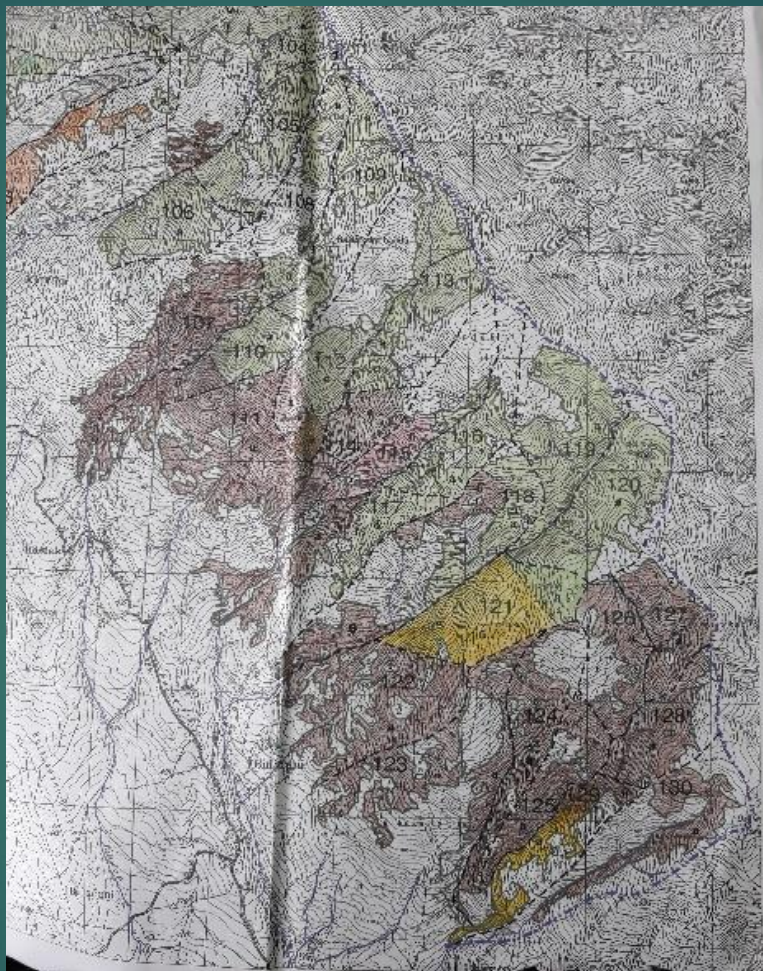
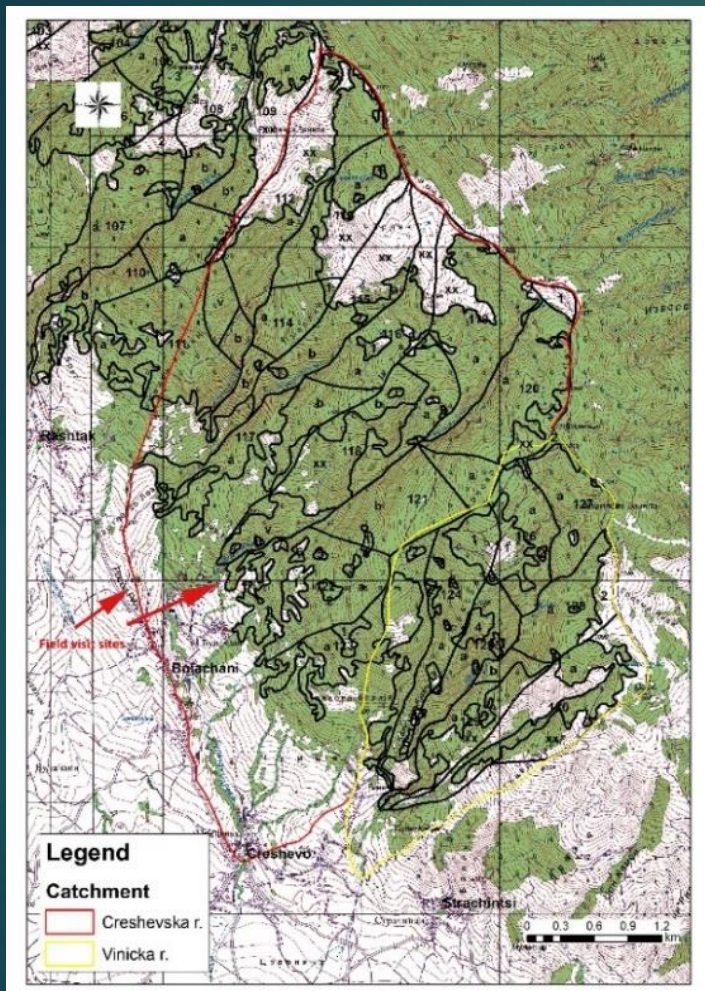


Generating momentum on water and forests in the Balkans project



Скопје, 17.8.2019

ИСТРАЖУВАЧКИ РЕГИОН



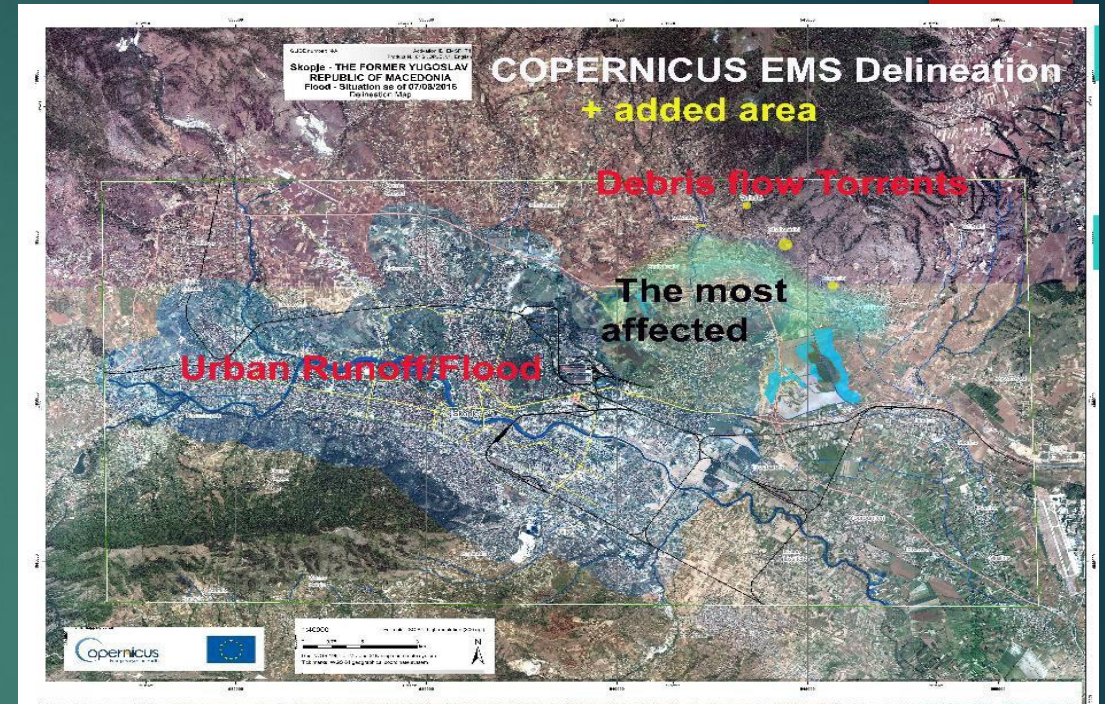
Дел од ШСЕ
Скопска
Црна Гора

Црешевска и
Виничка Река

Црешевска Река – оддели : 112, 113, 114, 115, 116, 117, 117, 118, 119, 120, 121, 122, 123 (дел)

Виничка Река – оддели 123 (дел), 124, 125, 126, 127, 128, 129, 130.

Карактеристики на истражуваното подрачје



Топографски карактеристики

Црешевска река

Површина 16,5 km²

Должина - 8,73 km

коти - од 302 m - 1579 m

просечна надм. висина – 891 m

просечлен наклон на терен – 34%

Виничка Река

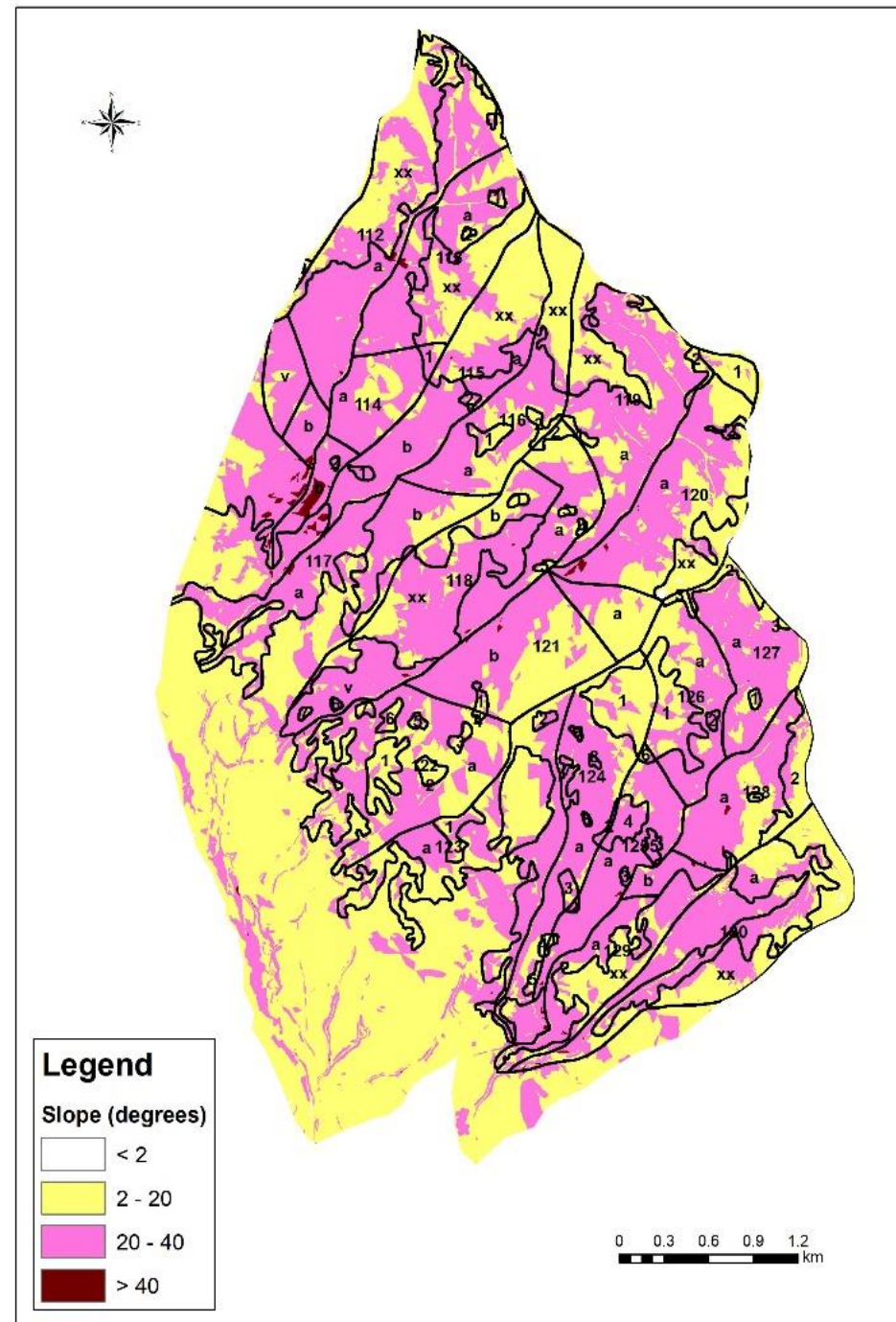
Површина – 7,41 km²

Должина - 5,99 km

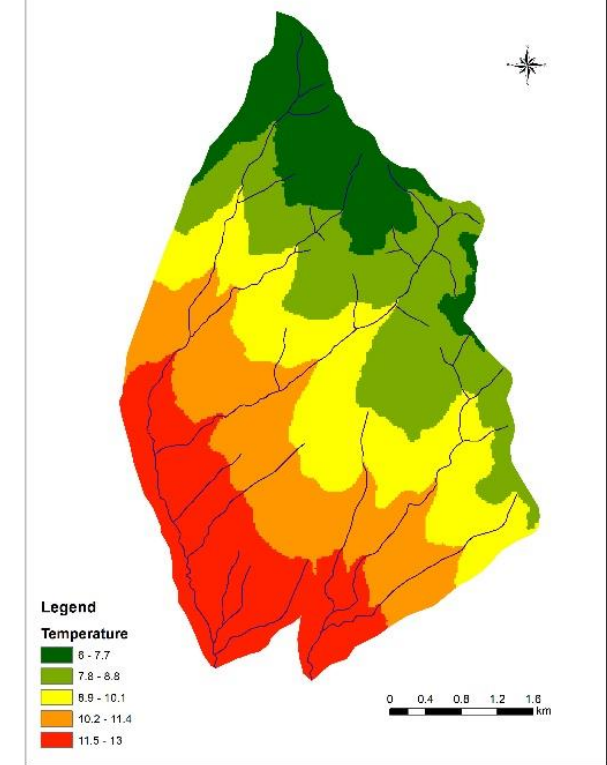
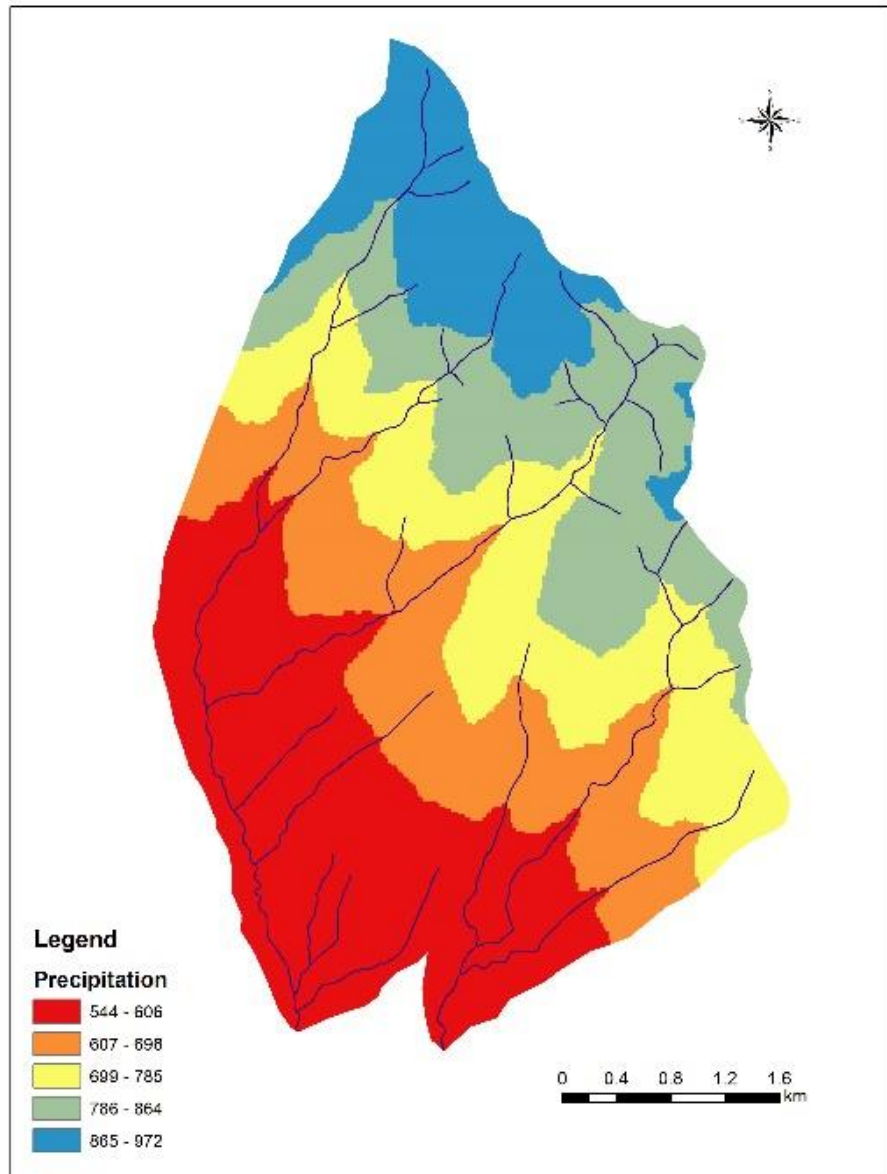
коти - од 285 m - 1317 m

просечна надм. висиниa – 815 m

просечлен наклон на терен – 35%

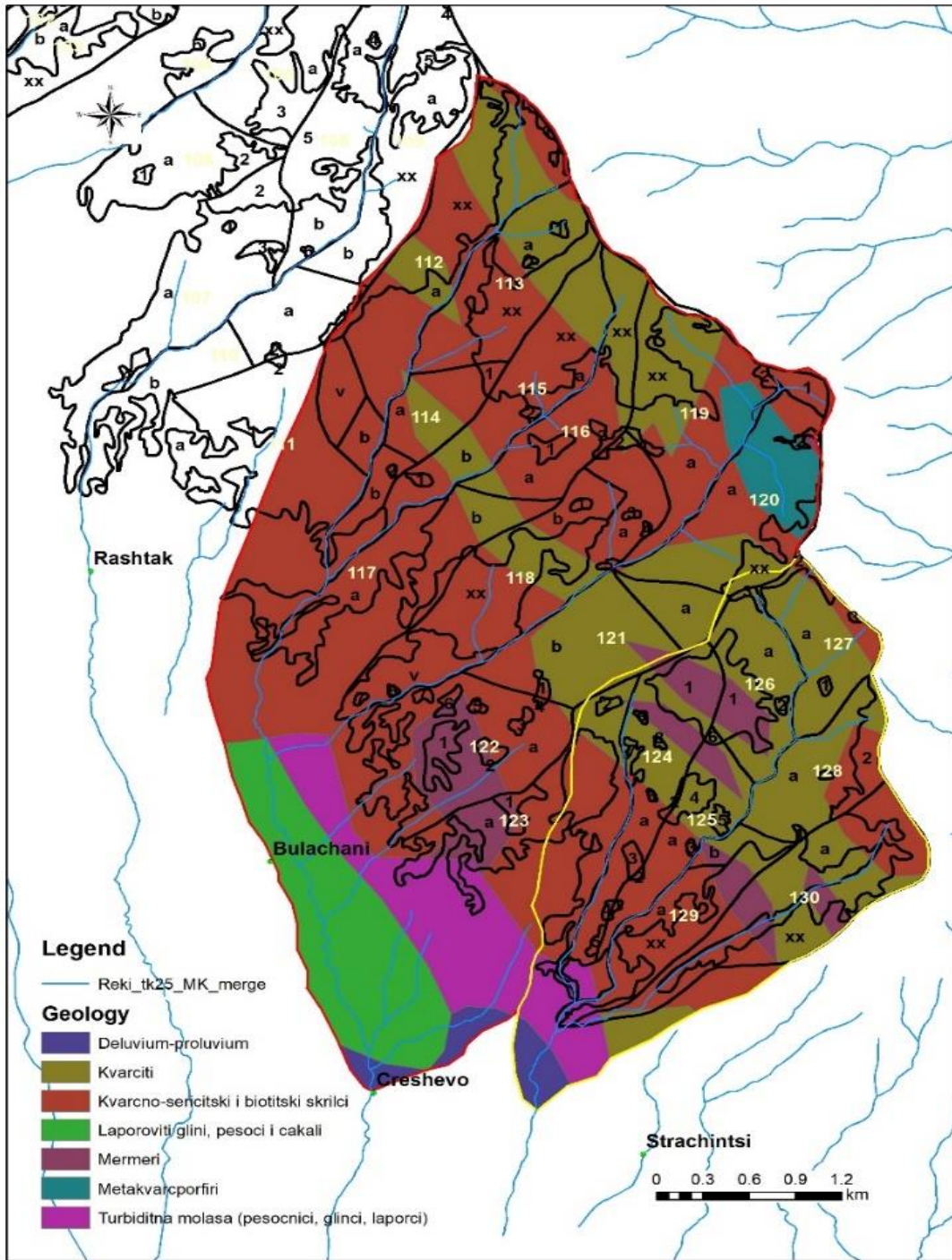


Климатски карактеристики



Prob.	element	40'	60'	90'	150'	300'
0,1%	mm	65.04	69.53	71.61	75.19	84.07
	mm/min	1.63	1.16	0.80	0.50	0.28
1 %	mm	48.27	51.71	53.49	56.70	63.40
	mm/min	1.21	0.86	0.59	0.38	0.21
2 %	mm	43.19	46.31	48.01	51.10	57.14
	mm/min	1.08	0.77	0.53	0.34	0.19
4 %	mm	38.08	40.88	42.48	45.47	50.84
	mm/min	0.95	0.68	0.47	0.30	0.17

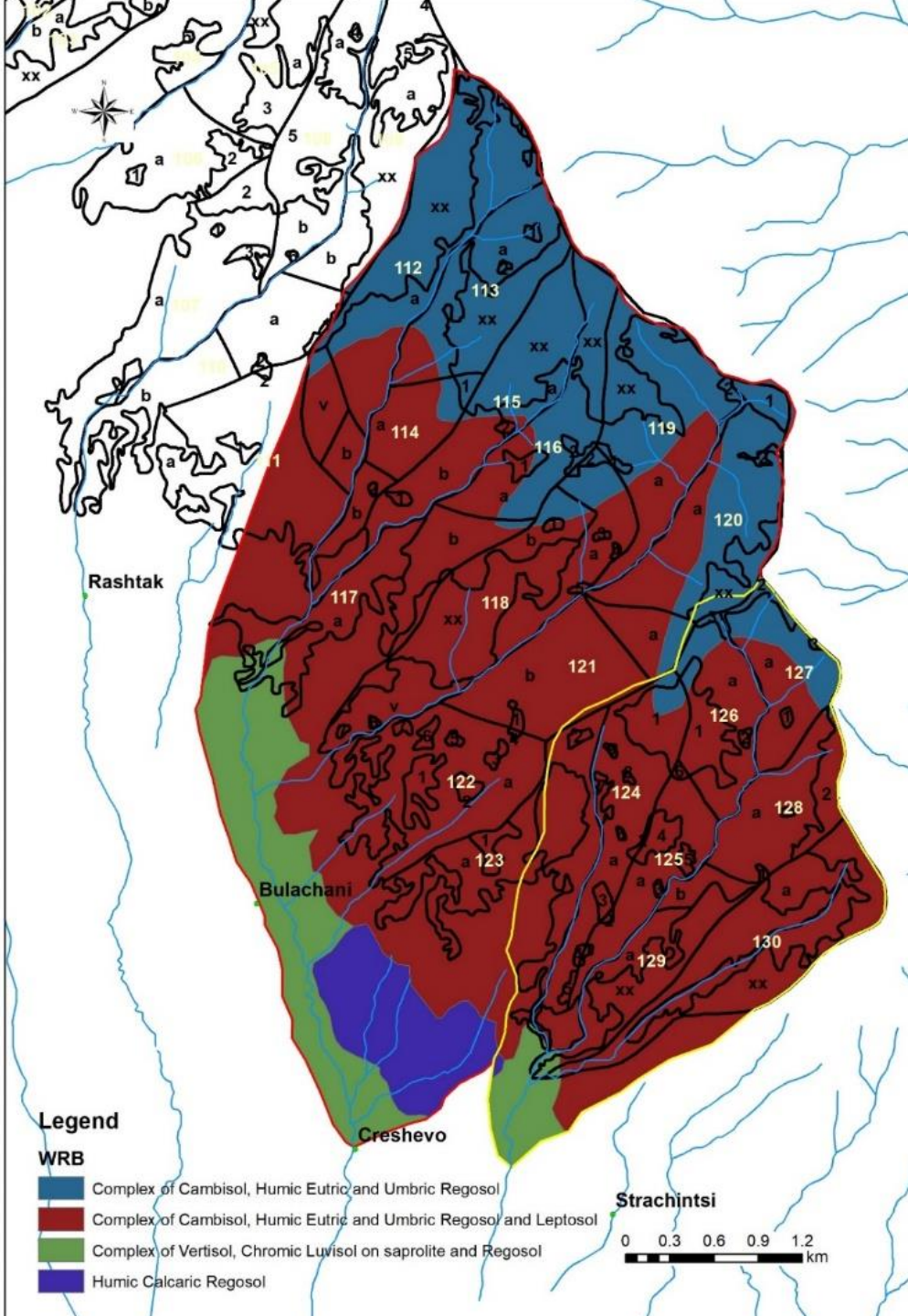
Геолошки карактеристики



- ▶ Делувиум пролувиум
- ▶ Кварцит
- ▶ Кварцно-серицитски шкрилци
- ▶ Лапоровити глини песоци и чакали
- ▶ Мермери
- ▶ Метакварцпрофири
- ▶ Турбидидна моласа (глинци , лапорци, песоци)

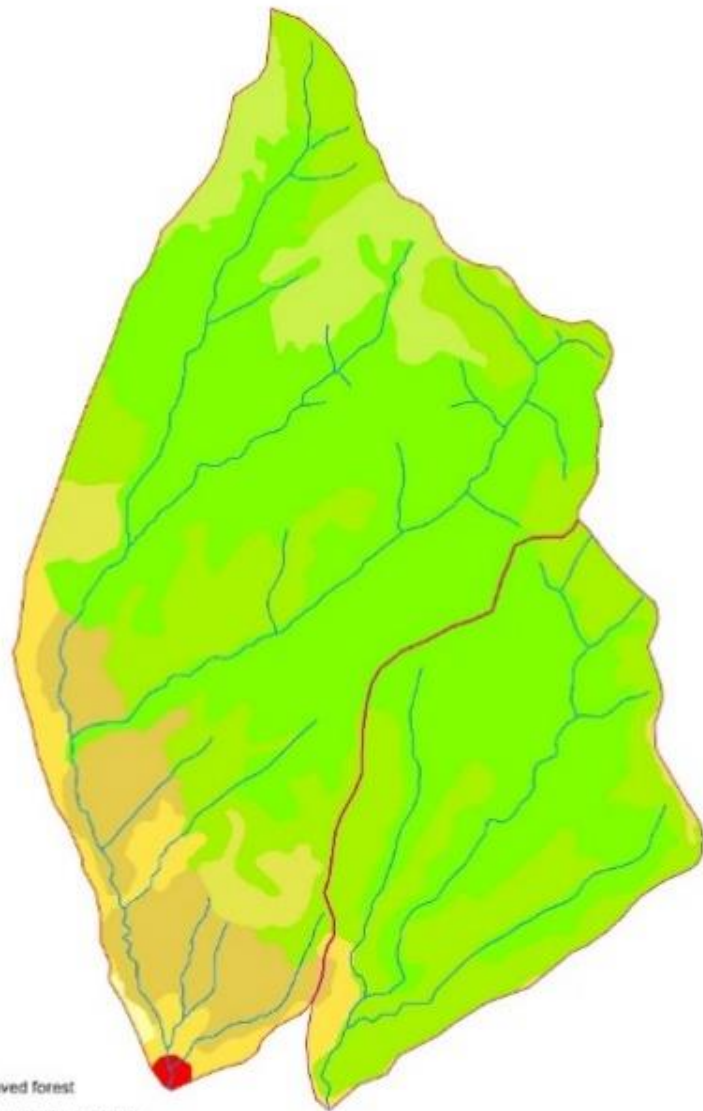
ПОЧВЕНИ КАРАКТЕРИСТИКИ

- ▶ Кафеави шумски почви и ранкер
- ▶ Кафеави шумски почви, ранкер и лептосол
- ▶ Смолница, циметна почва и регосол
- ▶ Рендзина



Profile	Type of	Depth of	organic	pH in	pH in	Skeleton	Soild sand	Fina sand	Silt	Clay	Hygroscope
nro	Horizont	horizon	Matter	H ₂ O	NKCL	>2 mm	0.25-2	0.02-0.25	0.002-0.02	<0.002mm	moisture
		cm	%			%	%	%	%	%	%
Leptoosol (Ranker)											
005.20	A	0-15	3,82	5,55	4,57	14,56	28,02	47,13	21,57	3,28	2,47
005.21	A	0-16	3,17	6,08	4,67	37,61	35,63	35,86	21,73	6,78	1,05
Cambisol											
005.24	A	0-15	2,16	3,80	2,97	30,03	23,30	47,67	23,73	5,29	1,35
	(B)v	15-31	1,80	4,72	3,42	27,30	23,29	45,39	23,63	7,69	1,33
005.25	A	0-16	5,04	6,40	5,27	33,46	23,64	39,84	27,96	8,56	2,56
	(B)v	16-34	2,83	5,80	5,20	43,74	22,57	35,76	34,00	7,67	2,79
Humic calcaric regosol											
B 117.Sk	Ap	0-36	2,74	8,06	7,1	8,64	7,11	19,69	43	30,2	3,16
	AC	36-64	1,57	8,25	7,26	3,06	5,72	17,58	42	34,7	2,76
	C	64-92	0,41	8,40	7,38	0,4	0,64	18,16	48,5	32,7	2,06

Corine LCU – покривност на земјиштето



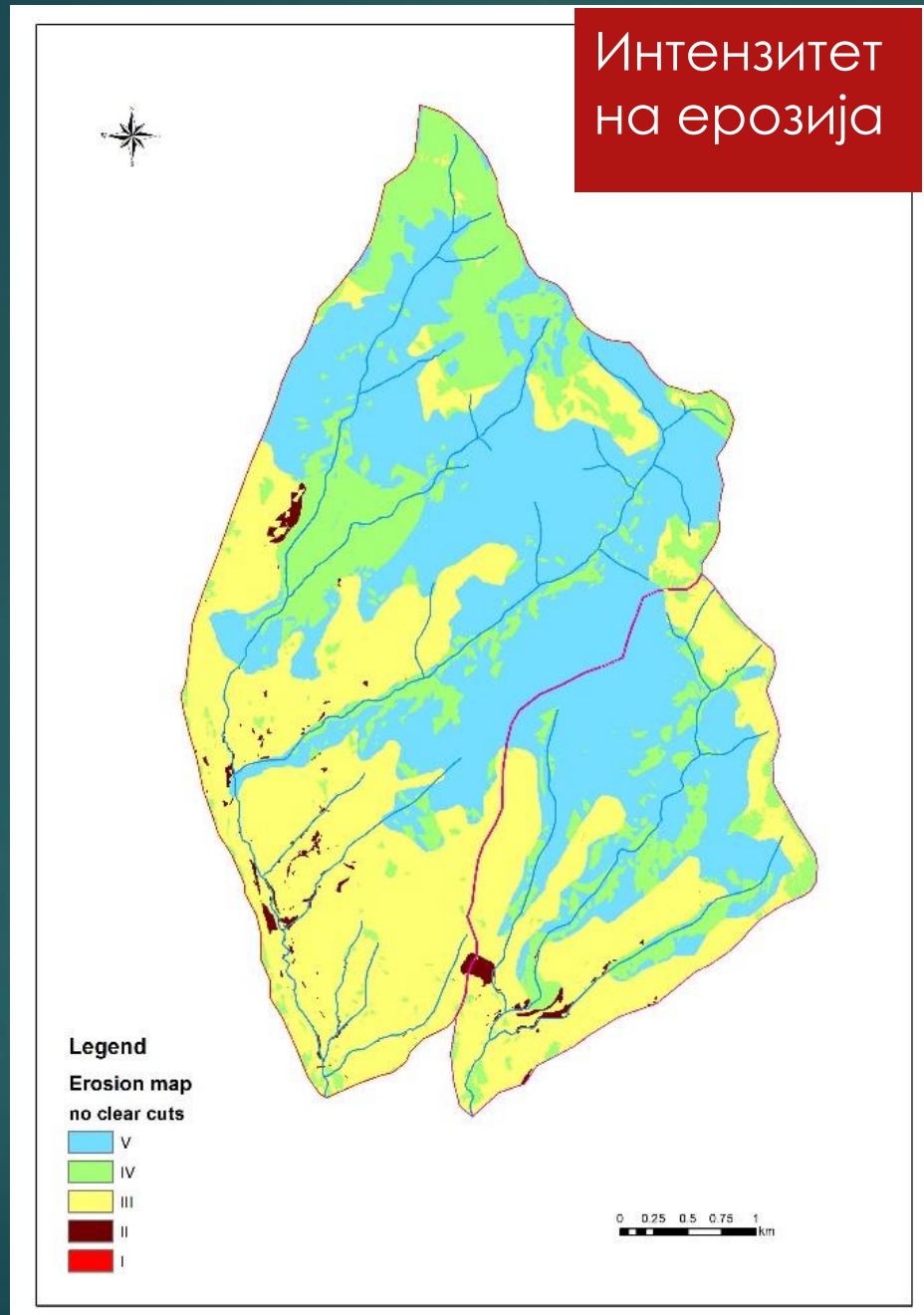
Legend

- Broad-leaved forest
- Complex cultivation patterns
- Discontinuous urban fabric
- Land principally occupied by agriculture, with significant areas of natural vegetation
- Natural grassland
- Non-irrigated arable land
- Pastures
- Transitional woodland-shrub

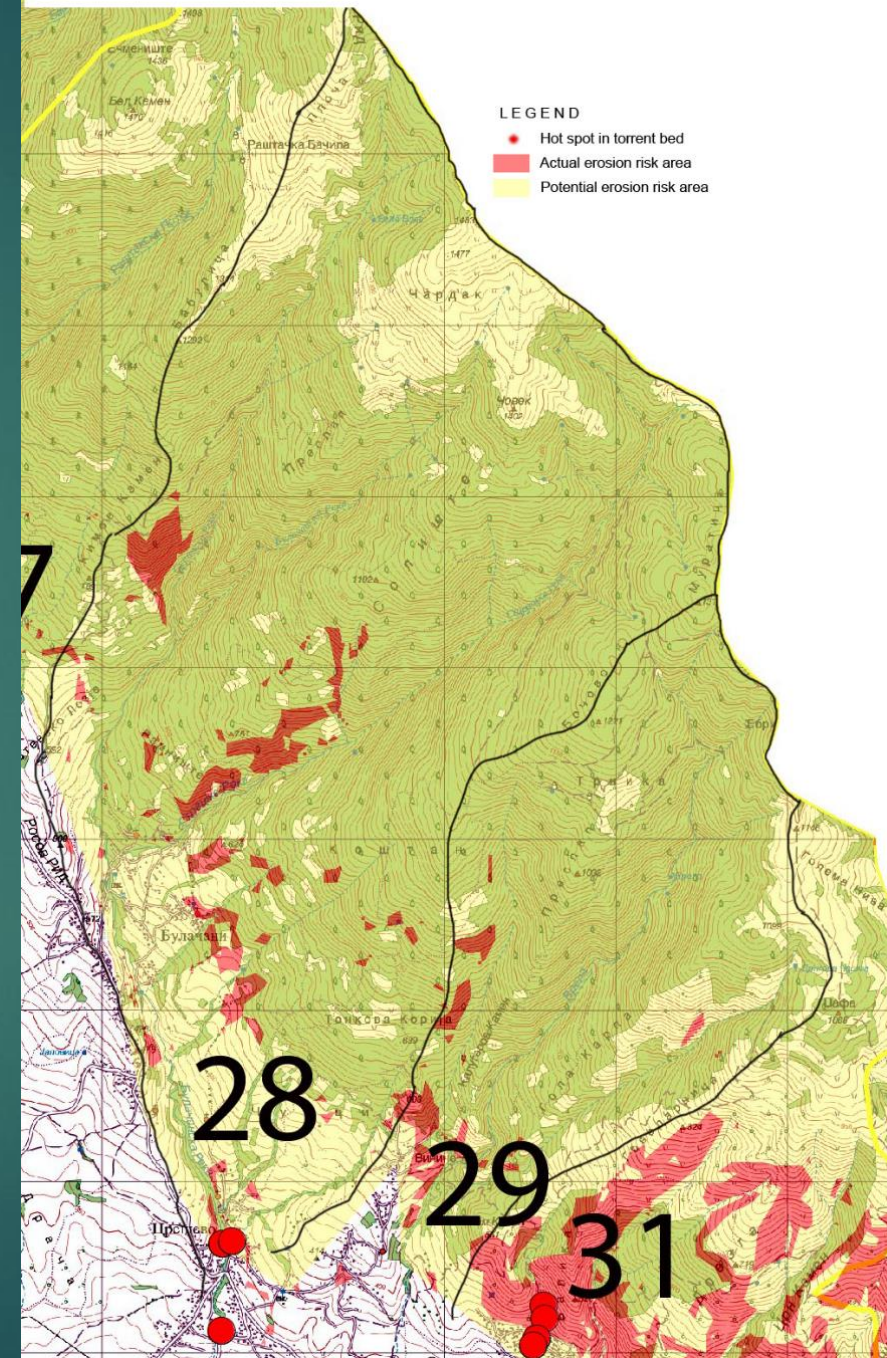
0 0.25 0.5 0.75 1 km

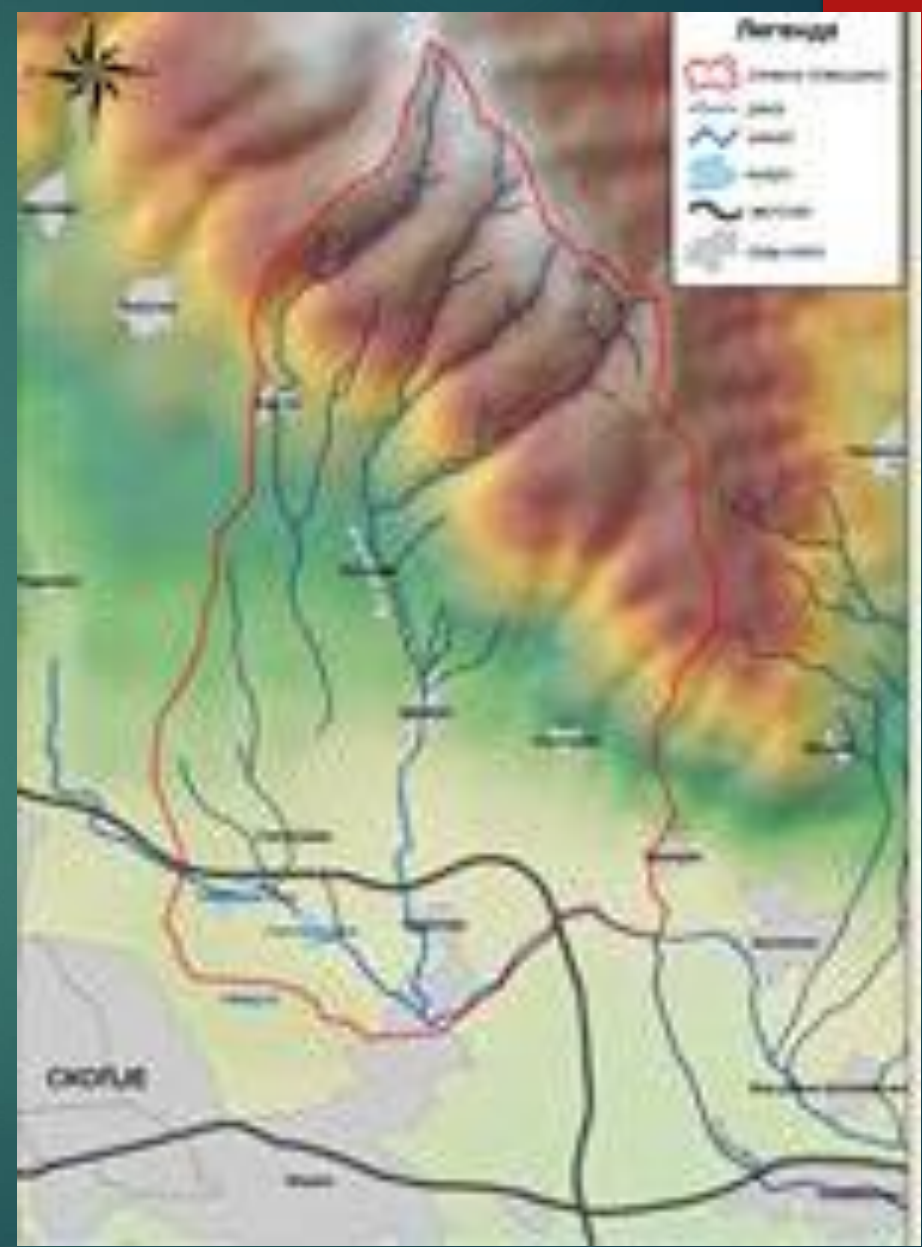
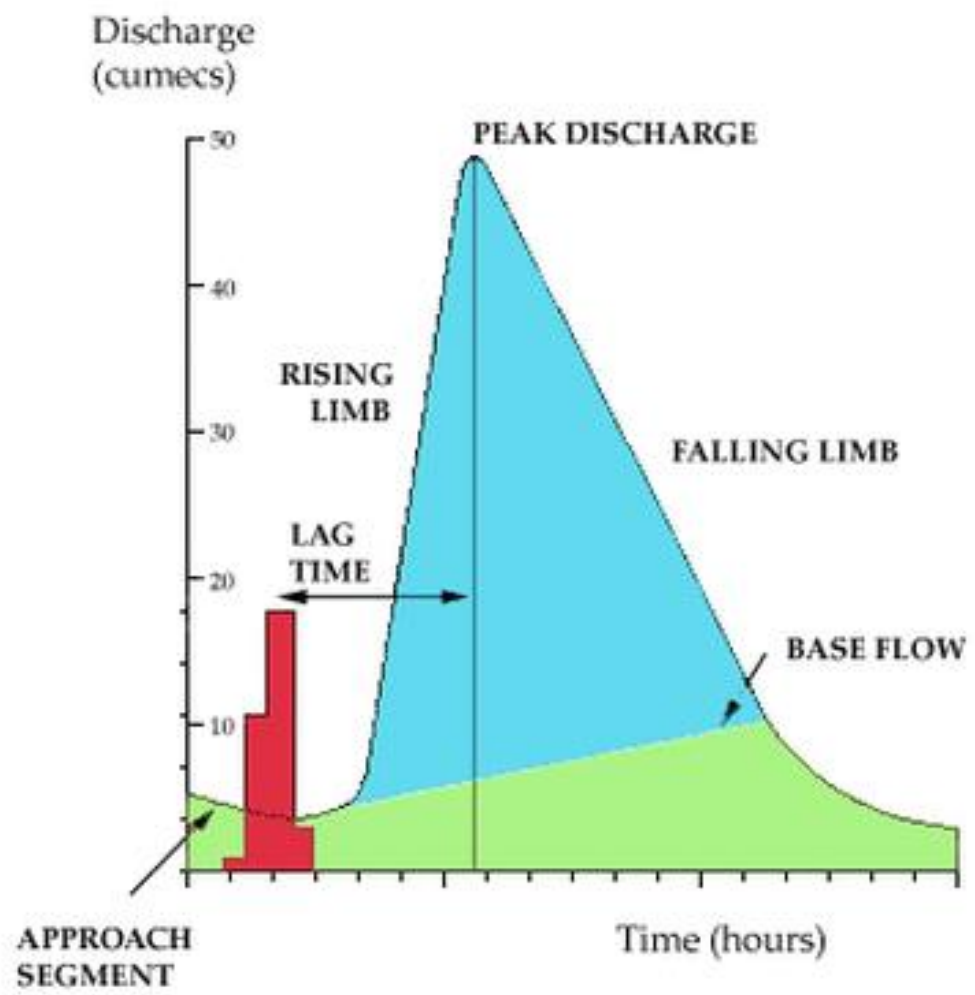
- ▶ - Горун (*Quercus Petrea*) до 1250 m asl.
- ▶ - Чисти но и мешани насади со воден габер!!
- ▶ Бука (*Fagus Moesiaca*)
- ▶ Чисто но и мешани насади со воден габер!!!
- ▶ Пониско има благун (*Quercus Pubescens*).

Ерозија



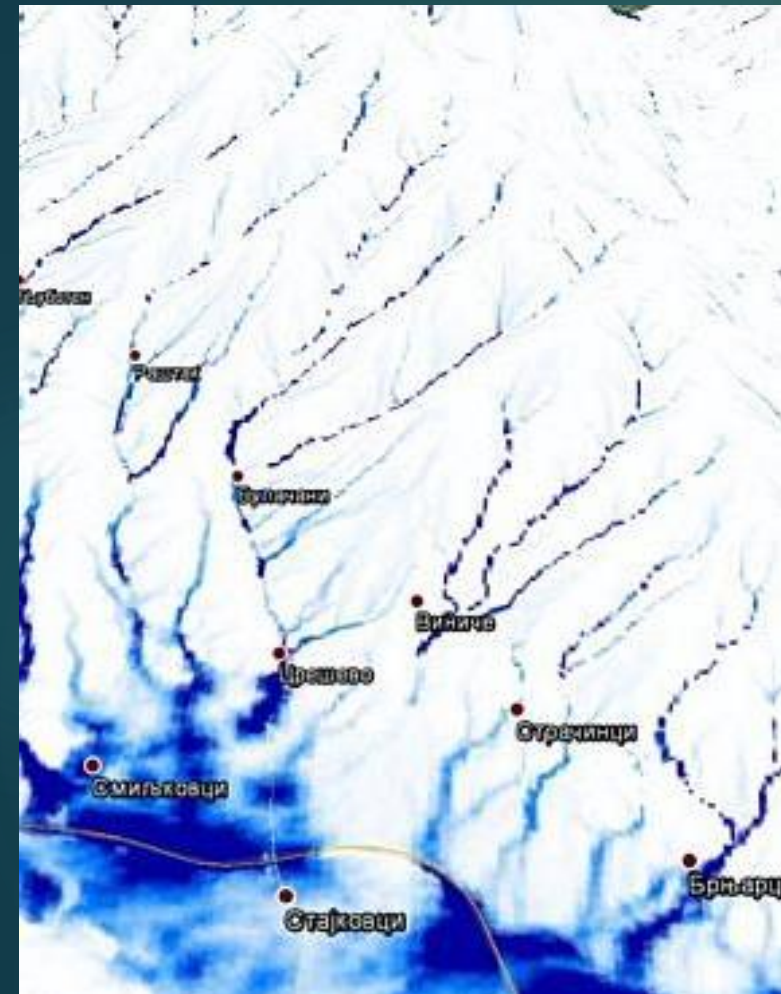
Actual and Potential Erosion Risk Areas



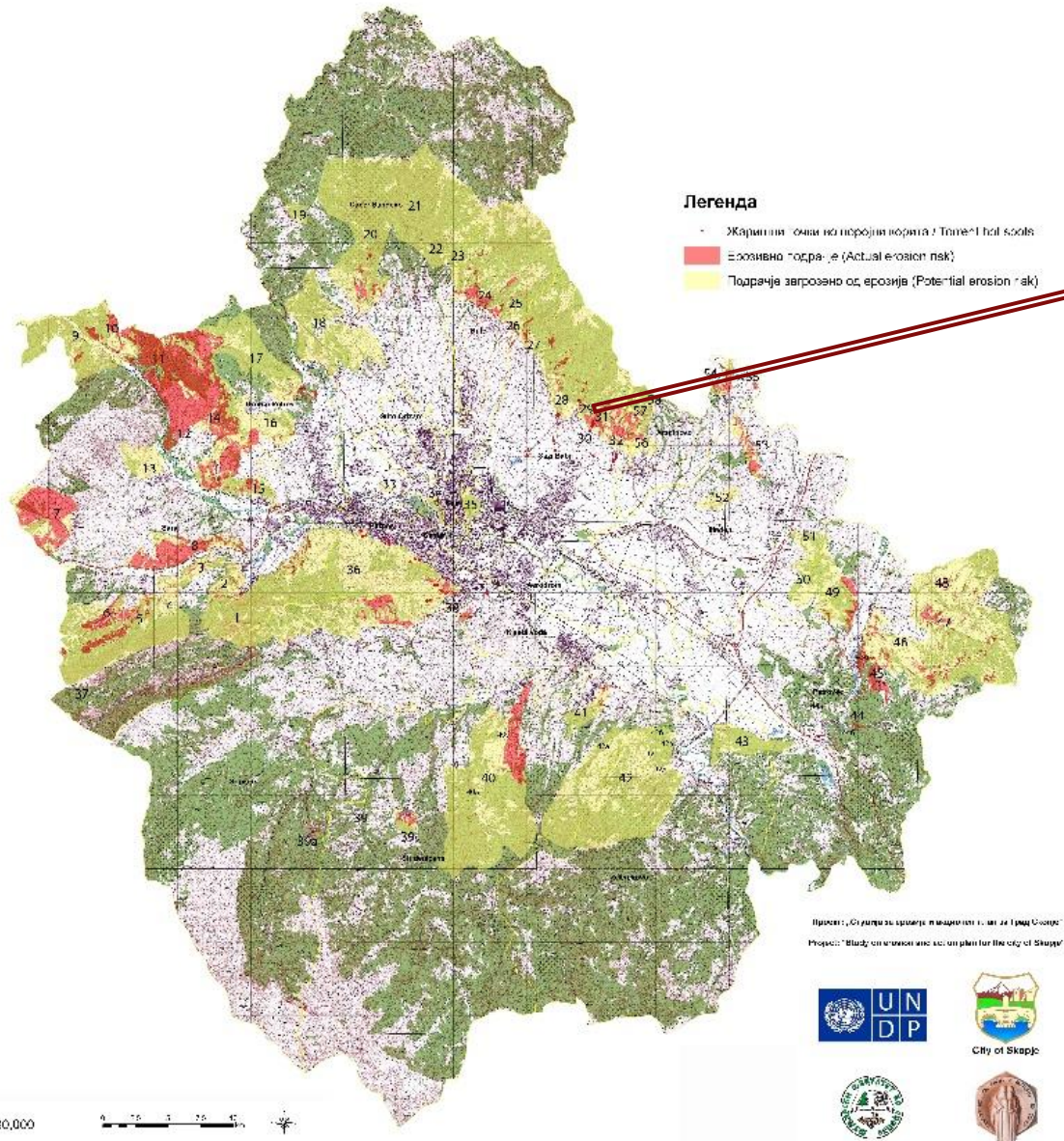


Parameter	m.u.	Cresevska	Vinicka
A - Catchment area	km ²	16.50	7.41
Lt – Length of the the river	km	8.73	5.99
U – Distance from the center to the profile	km	4.56	3.25
O – catchment perimeter	km	21.02	14.23
B = A/O mean width	km	0.78	0.52
Hav – Mean altitude	m asl	890.67	815.76
Hmax – maximal altitude	m asl	1579.00	1317.00
Hmin – minimal altitude	m asl	302,00	285.00
D H – mean altitude difference	m	588.67	530.76
K – coeff. of concentration in the catchment		0.34	0.32
Iav – Mean slope of the catchment	%	34.00	36.00
Tc - Time of concentration	hours	1.89	1.38
d – Moisture deficit	mm	67.52	127.95
CN – Curve number		79	66
S₁ – coef. of permeability (0.4-1)		0.43	0.41
S₂ – coef. of vegetation cover (0.6-1)		0.62	0.67
h - runoff coefficient		0.38	0.39
Q₁₀₀ – maximal water discharge (1% probability)	m ³ /s	42.94	24.32
Pa – mean annual precipitations on the catchment	mm	748.00	748.00
Z – coef. of erosion by Gavrilovic (0,05 -1,5+)		0.45	0.44
W – mean annual produced erosive material	m ³	11590.00	5205.03
G – mean annual transported material to profile	m ³	8767.62	3605.66

Q_{\max} - Максимален протек на вода - (m^3/s)



Ерозивни подрачја (ЕП) и Подрачја загрозени од ерозија (ПЗЕ) во Скопски регион



$P = 110 \text{ mm}$ $W = 2,3 \text{ milioni m}^3 \text{ вода}$
 $P_e = 1,5 \text{ mil. m}^3 \text{ вода}$
Над обиколница - $C_{sa} 400\,000 \text{ m}^3 \text{ нанос}$



Благодарам на вниманието



Last Slide

It's not over...

Thank you for your attention