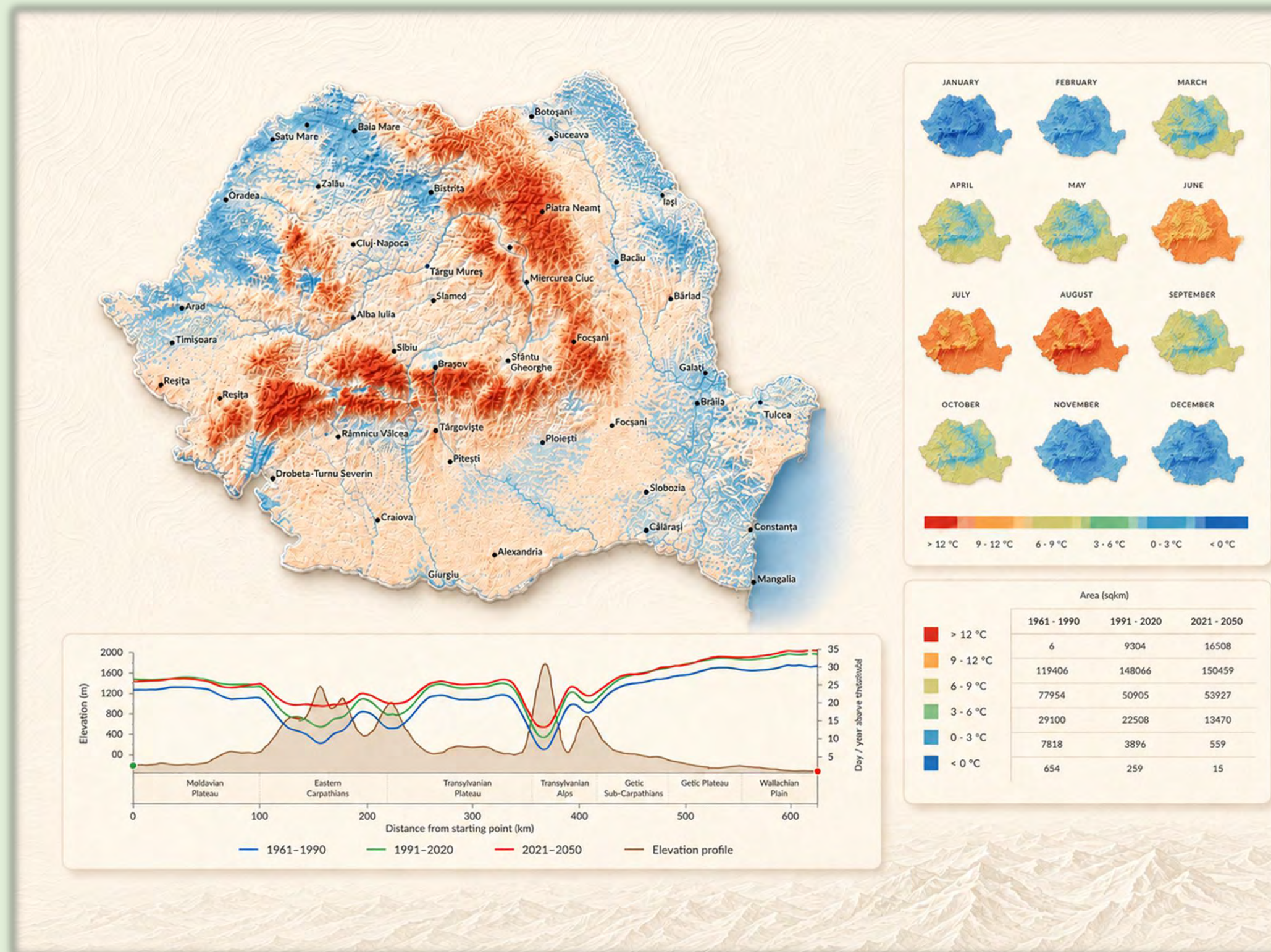


Ionel Haidu · Zsolt Magyari-Sáska · Nicoleta Ionac · Adrian Iraşoc

ATLAS OF ROMANIA'S MAIN CLIMATIC PARAMETERS

Recent Changes, 1961–2020, and Projections for 2021–2050



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Scientific Referees:

Senior Research Fellow Dr. Cristian Valeriu Patriche (ORCID: [0000-0003-4970-0860](https://orcid.org/0000-0003-4970-0860))

Center for Geographical Research, Romanian Academy, Iași Branch

Prof. Dr. Sri Nurdianti (ORCID: [0000-0001-9571-7060](https://orcid.org/0000-0001-9571-7060))

Professor in Mathematical Science, IPB University, Indonesia

Authors:

Ionel Haidu, ORCID: [0000-0003-2586-7068](https://orcid.org/0000-0003-2586-7068)

Zsolt Magyari-Sáska, ORCID: [0000-0002-5572-4132](https://orcid.org/0000-0002-5572-4132)

Nicoleta Ionac, ORCID: [0000-0001-8251-2218](https://orcid.org/0000-0001-8251-2218)

Adrian Irașoc, ORCID: [0000-0002-9496-5588](https://orcid.org/0000-0002-9496-5588)

Asociația *Geographia Technica*

Str. Prunilor nr. 2

400334 Cluj-Napoca, România

Tel. (+40)-744-238.093

editorial-secretary@technicalgeography.org

<http://technicalgeography.org>

Universitatea Babeș-Bolyai

Presa Universitară Clujeană

Director: Codruța Săcelean

Str. B.P. Hasdeu nr. 51

400371 Cluj-Napoca, România

Tel./fax: (+40)-264-597.401

E-mail: editura@ubbcluj.ro

<http://www.editura.ubbcluj.ro>

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ATLAS OF ROMANIA'S MAIN CLIMATIC PARAMETERS

Recent Changes, 1961–2020, and Projections for 2021–2050

Ionel Haidu, Zsolt Magyari-Sáska, Nicoleta Ionac & Adrian Iraşoc

This atlas is a special issue of the *journal Geographia Technica*, Volume 21, No. 4.

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INTRODUCTION

The atlas is based on monthly mean data for the main climatic parameters: mean air temperature, maximum temperature, minimum temperature, cloudiness, sunshine duration, air pressure, wind, relative humidity, precipitation, and snow-cover depth, recorded at 155 meteorological stations.

The WMO defines standard climatological normals as 30-year periods updated every decade, while 1961-1990 remains an important reference period for assessing long-term climate change. 1991-2020 is the most recent observed climatological normal, and 2021-2050 is presented as a projection period constructed on the basis of RCP4.5 / CORDEX - ALADIN.

RCP4.5 is a stabilization pathway used in CMIP5/CORDEX climate experiments. In this atlas it provides the forcing scenario under which the regional projections are interpreted. The CORDEX-ALADIN family consists of high-resolution regional climate models (RCMs) developed by adapting the ALADIN numerical weather prediction model for long-term climate simulations within the international CORDEX initiative. The outputs for 2021–2050 are derived from simulations specifically configured to capture high-resolution atmospheric processes. These data provide a detailed representation of local climate interactions and extreme events, offering a robust foundation for regional impact assessments.

Chapters 2–5 of the atlas comprise 780 maps at various scales, 35 tables, and 95 profiles/graphs distributed by specific parameters and across the three climatological normal periods. Chapter 6 includes summary data tables for the three normal periods for each analyzed climate parameter across 62 meteorological stations, accompanied by indices to capture the changes between normal periods and their statistical significance. Tables for the remaining 93 meteorological stations are also available and can be accessed via the specified link.

We would like to believe that the scientific content is relevant and of interest to researchers, specialists, students, and institutions interested in the fields of climatology, geography, environmental science, and climate change.

The development of this atlas was made possible through the support of the “Geographia Technica” Association.

INTRODUCERE

Atlasul se bazează pe date medii lunare pentru principalii parametri climatici: temperatura medie a aerului, temperatura maximă, temperatura minimă, nebulozitatea, durata de strălucire a Soarelui, presiunea atmosferică, vântul, umiditatea relativă, precipitațiile și grosimea stratului de zăpadă, înregistrate la 155 de stații meteorologice.

OMM definește normalele climatologice standard ca perioade de 30 de ani actualizate o dată la fiecare deceniu, în timp ce 1961-1990 rămâne o perioadă importantă de referință pentru evaluarea schimbărilor climatice pe termen lung. 1991-2020 este cea mai recentă normală climatologică observată, iar 2021-2050 este prezentată ca perioadă de proiecție construită pe baza RCP4.5 / CORDEX - ALADIN.

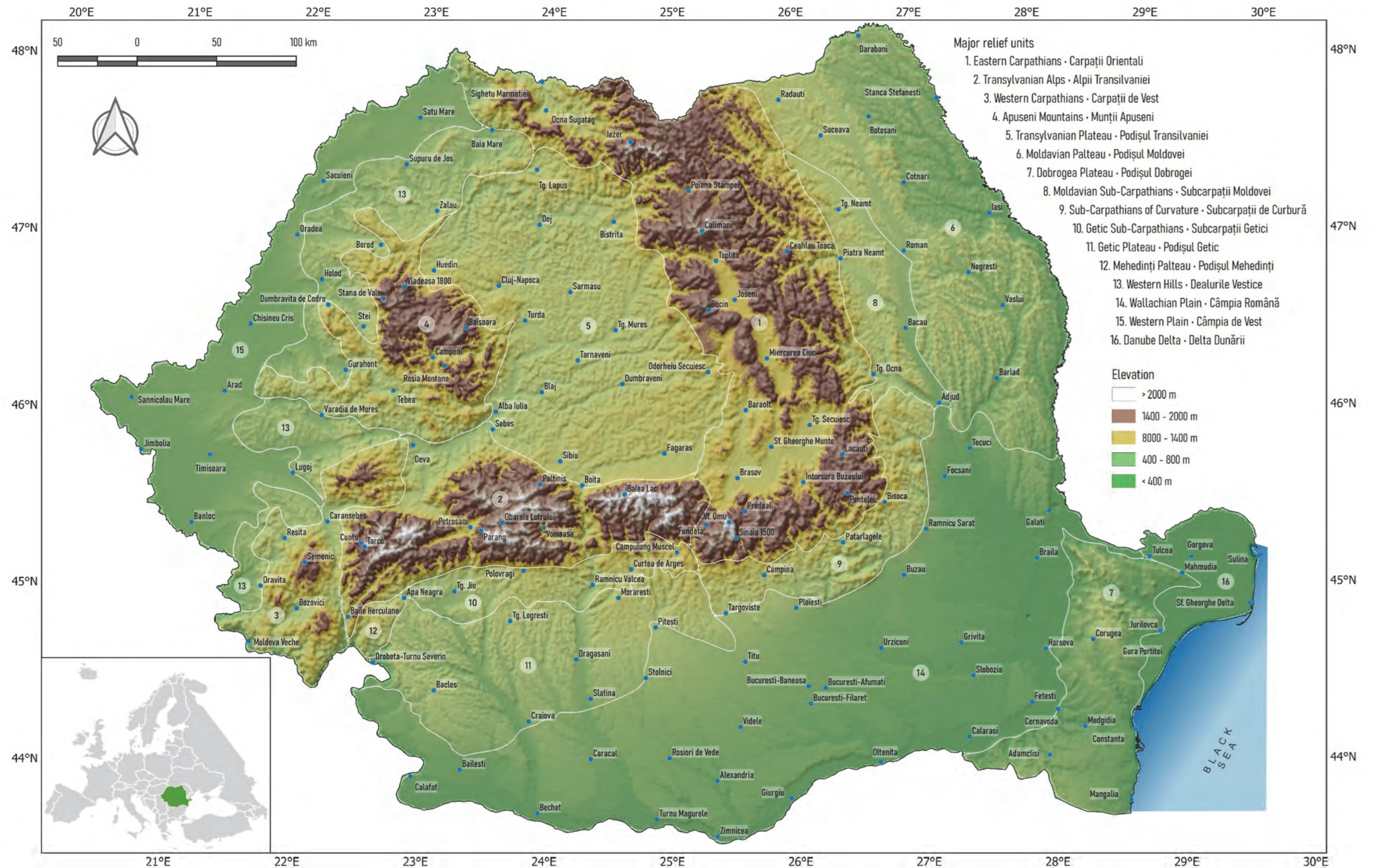
RCP4.5 este un scenariu de stabilizare utilizat în experimentele climatice CMIP5/CORDEX. În acest atlas, acesta oferă scenariul de forțaj în funcție de care sunt interpretate proiecțiile regionale. Familia CORDEX-ALADIN grupează modele climatice regionale (RCM) de înaltă rezoluție, dezvoltate prin adaptarea modelului numeric de prognoză meteo ALADIN pentru simulări climatice pe termen lung în cadrul inițiativei internaționale CORDEX. Rezultatele pentru perioada 2021–2050 sunt derivate din simulări configurate specific pentru a surprinde procese atmosferice la rezoluție înaltă. Aceste date oferă o reprezentare detaliată a interacțiunilor climatice locale și a fenomenelor extreme, constituind o bază robustă pentru studiile de impact regional.

Capitolele 2 -5 ale atlasului însumează 780 de hărți la diferite scări, 35 de tabele și 95 de profile/grafice distribuite pe parametri specifici și pe cele 3 perioade normale. Capitolul 6 cuprinde tabele de date sintetice pe cele 3 perioade normale pentru fiecare parametru climatic analizat de la 62 de stații meteorologice, însoțite de indicii pentru a surprinde schimbarea dintre perioadele normale și semnificația ei statistică. Există tabele și pentru celelalte 93 de stații meteorologice și pot fi accesate prin linkul specificat.

Avem încredere că acest conținut științific va fi de o reală relevanță și un real interes pentru cercetători, specialiști, studenți și instituții active în domeniile climatologiei, geografiei, științei mediului și schimbărilor climatice.

Realizarea acestui atlas a fost posibilă cu sprijinul acordat de Asociația „Geographia Technica”

Romania: elevation, relief units, and meteorological stations



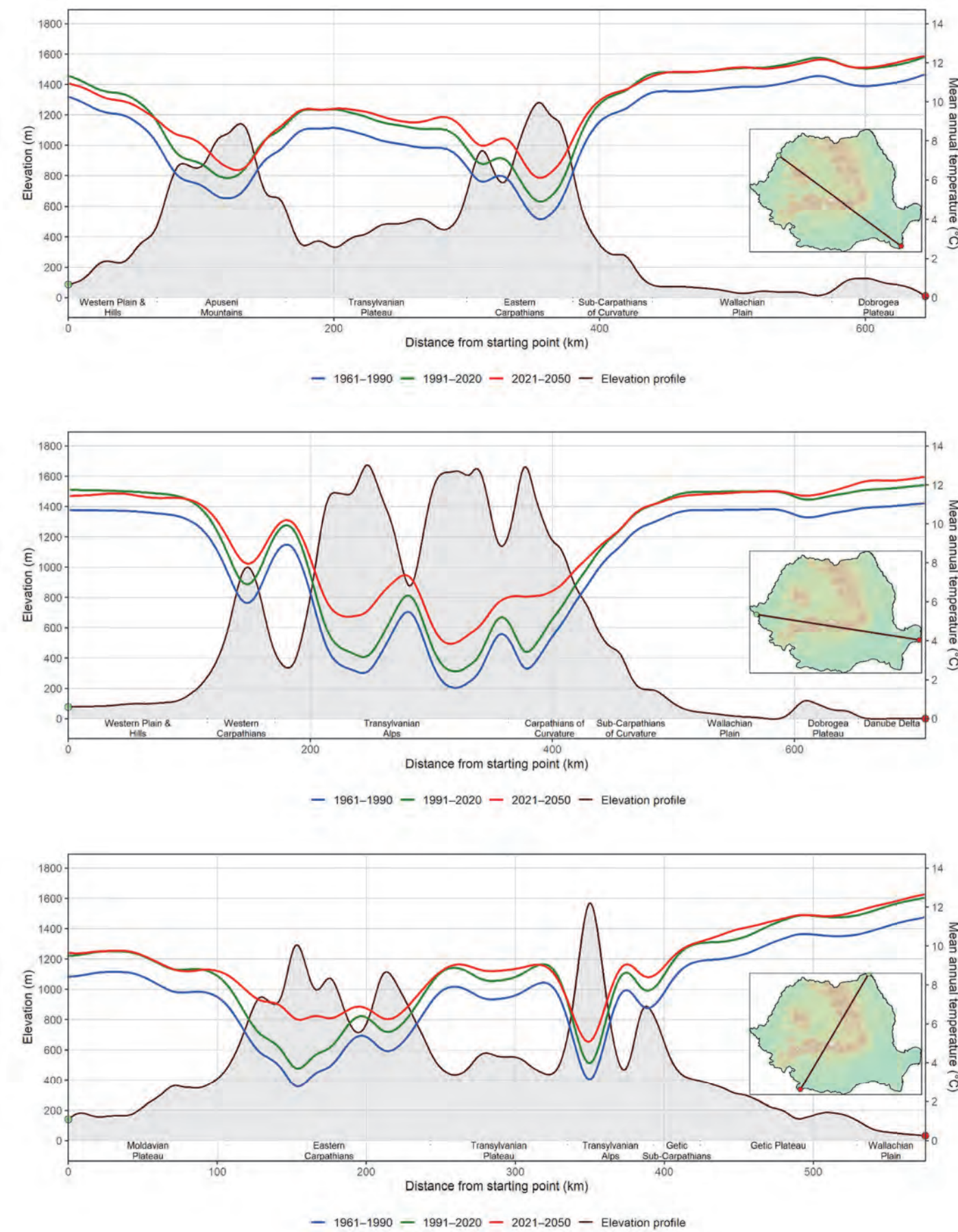
MAPS AND PROFILES OF MULTIANNUAL MEAN PARAMETERS



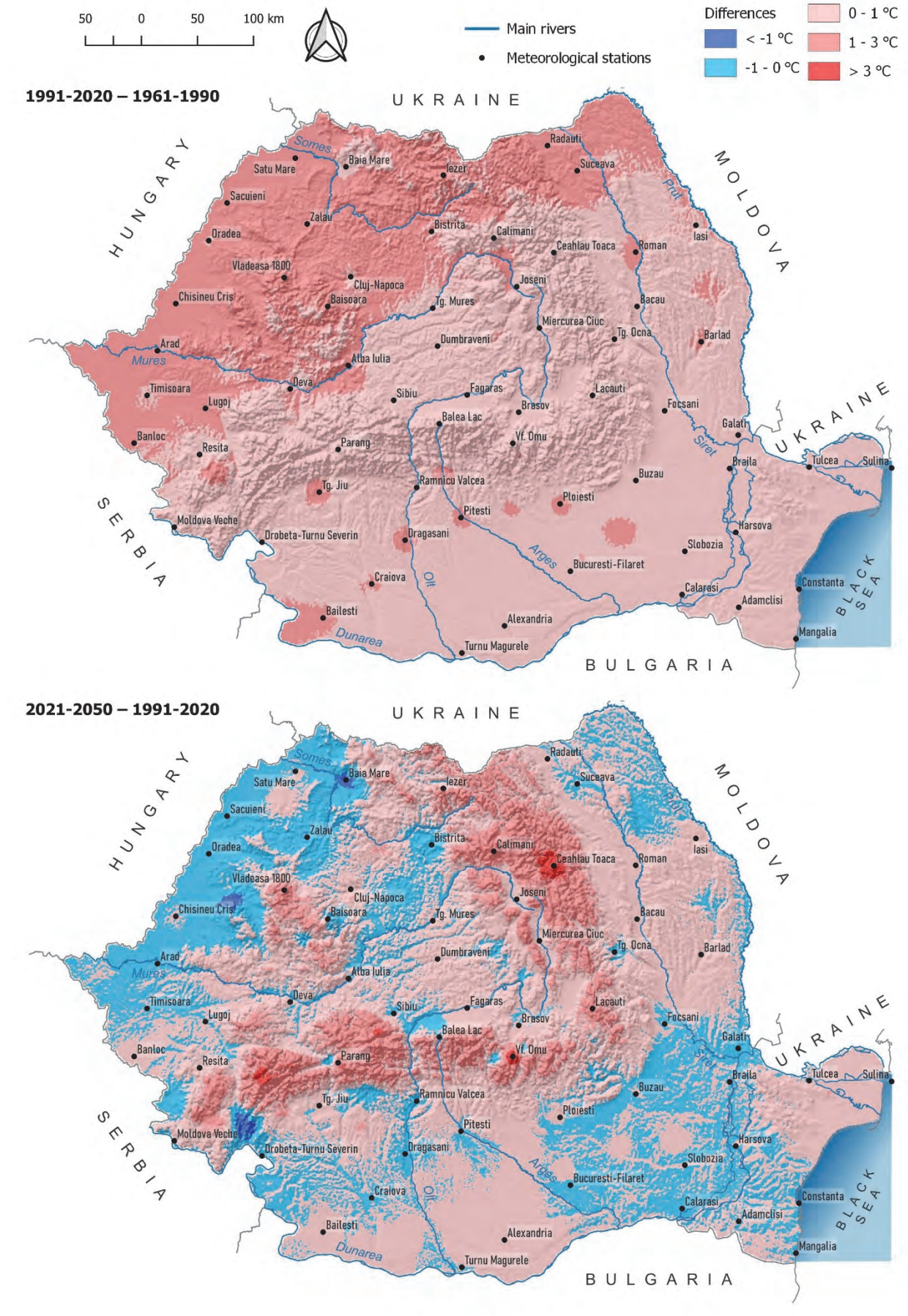
Area (sqkm)		
1961 - 1990	1991 - 2020	2021-2050
6	9304	16508
119406	148066	150459
77954	50905	53927
29100	22508	13470
7818	3896	559
654	259	15

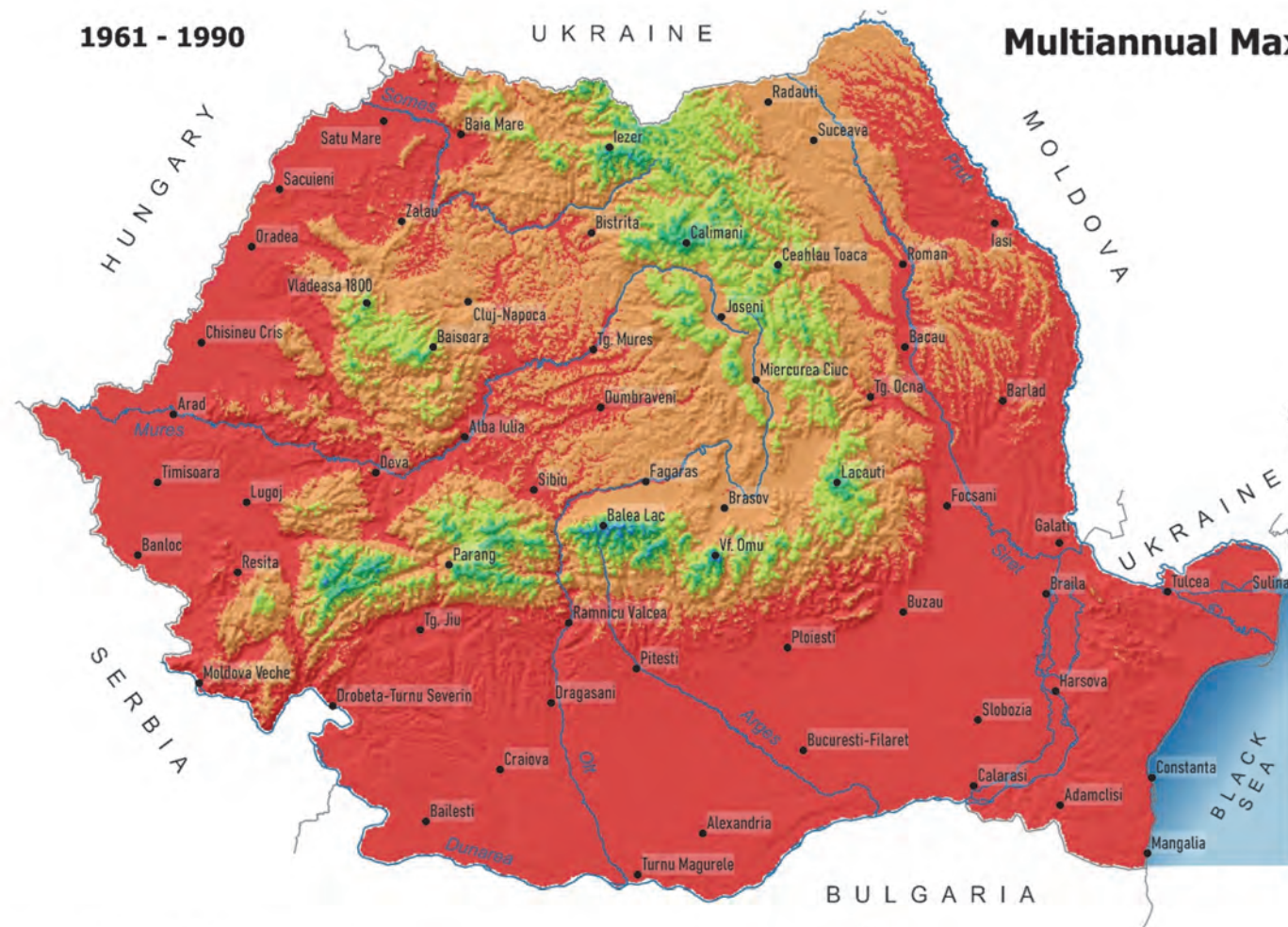


Combined elevation and mean annual temperature profile

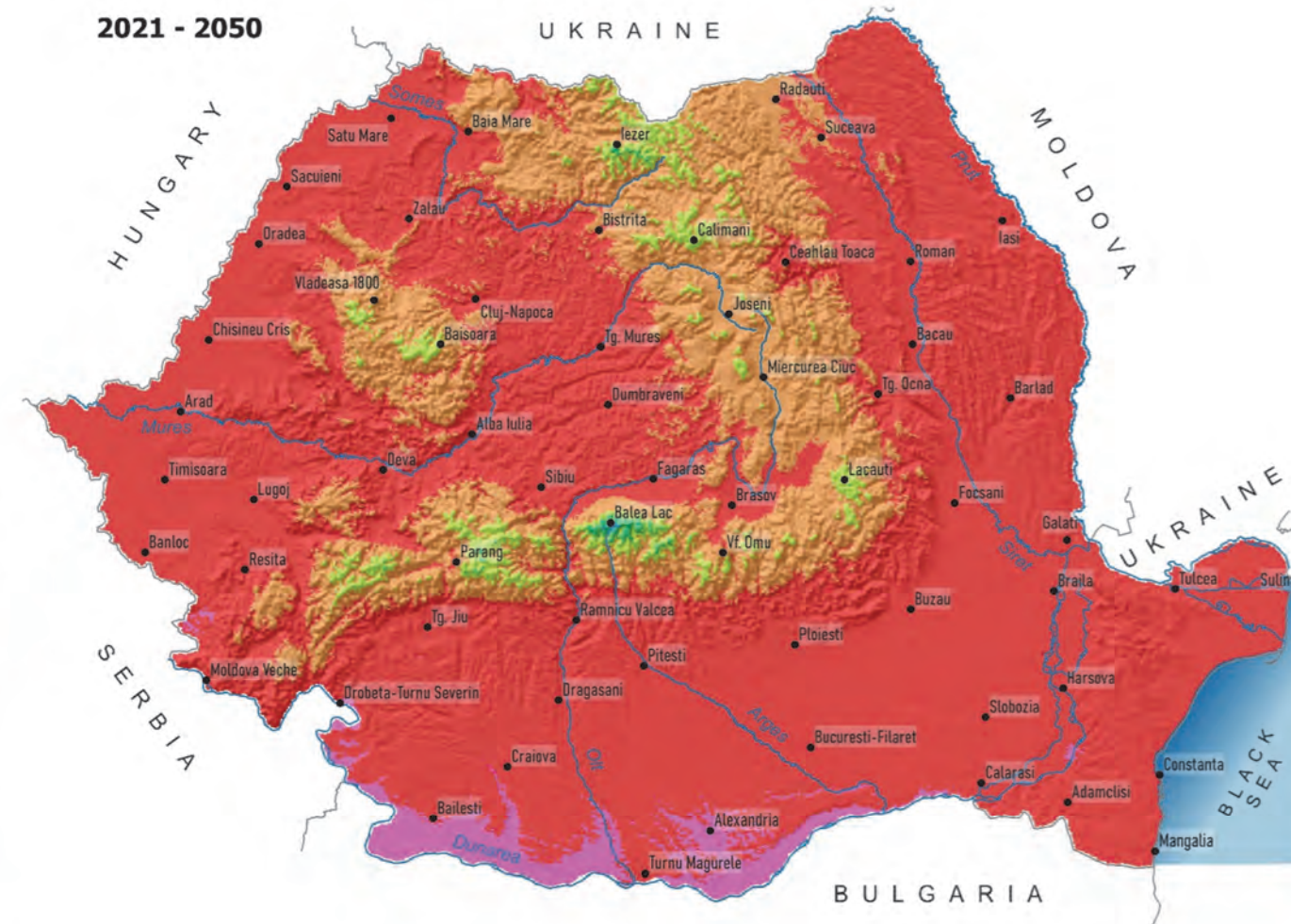
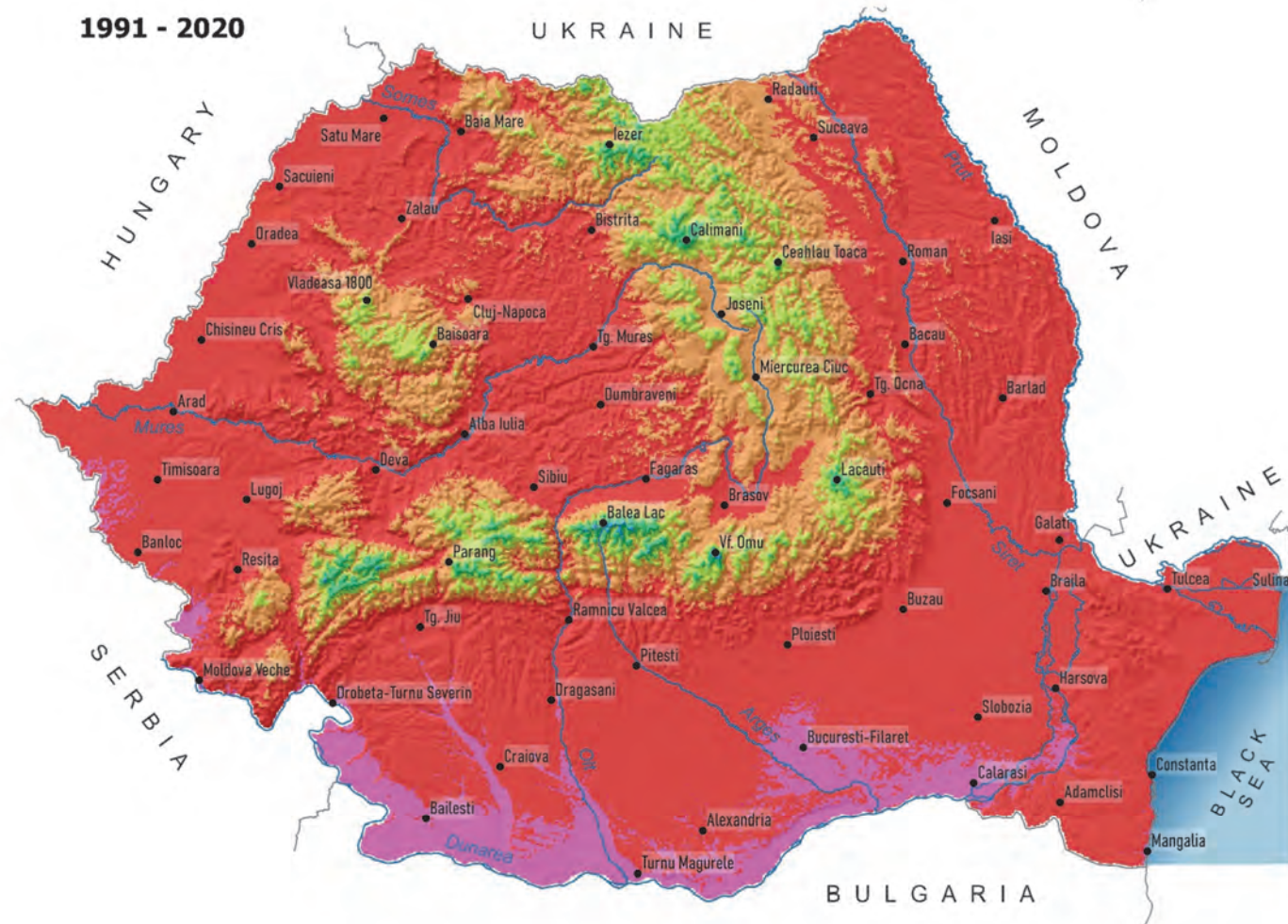


Difference maps

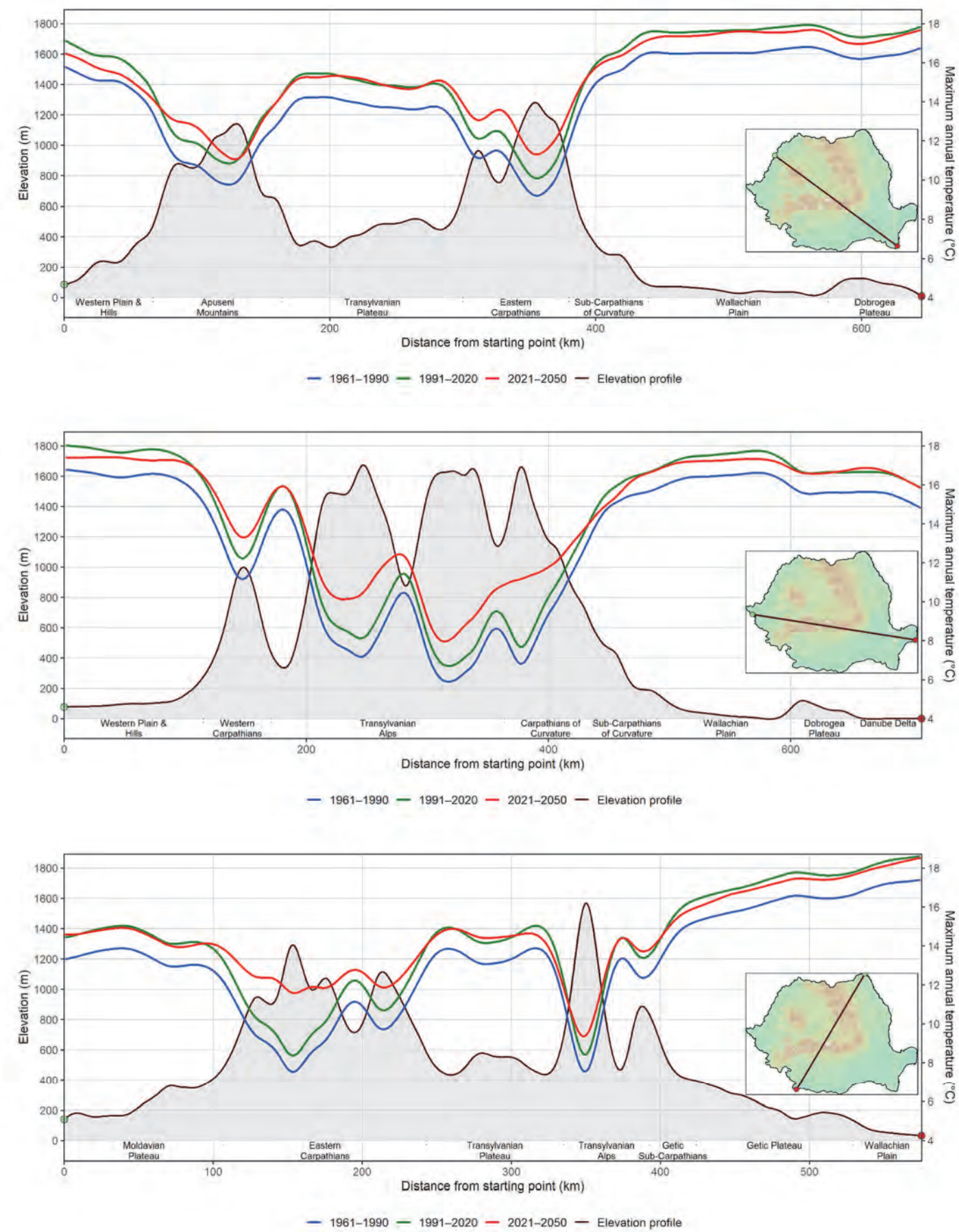




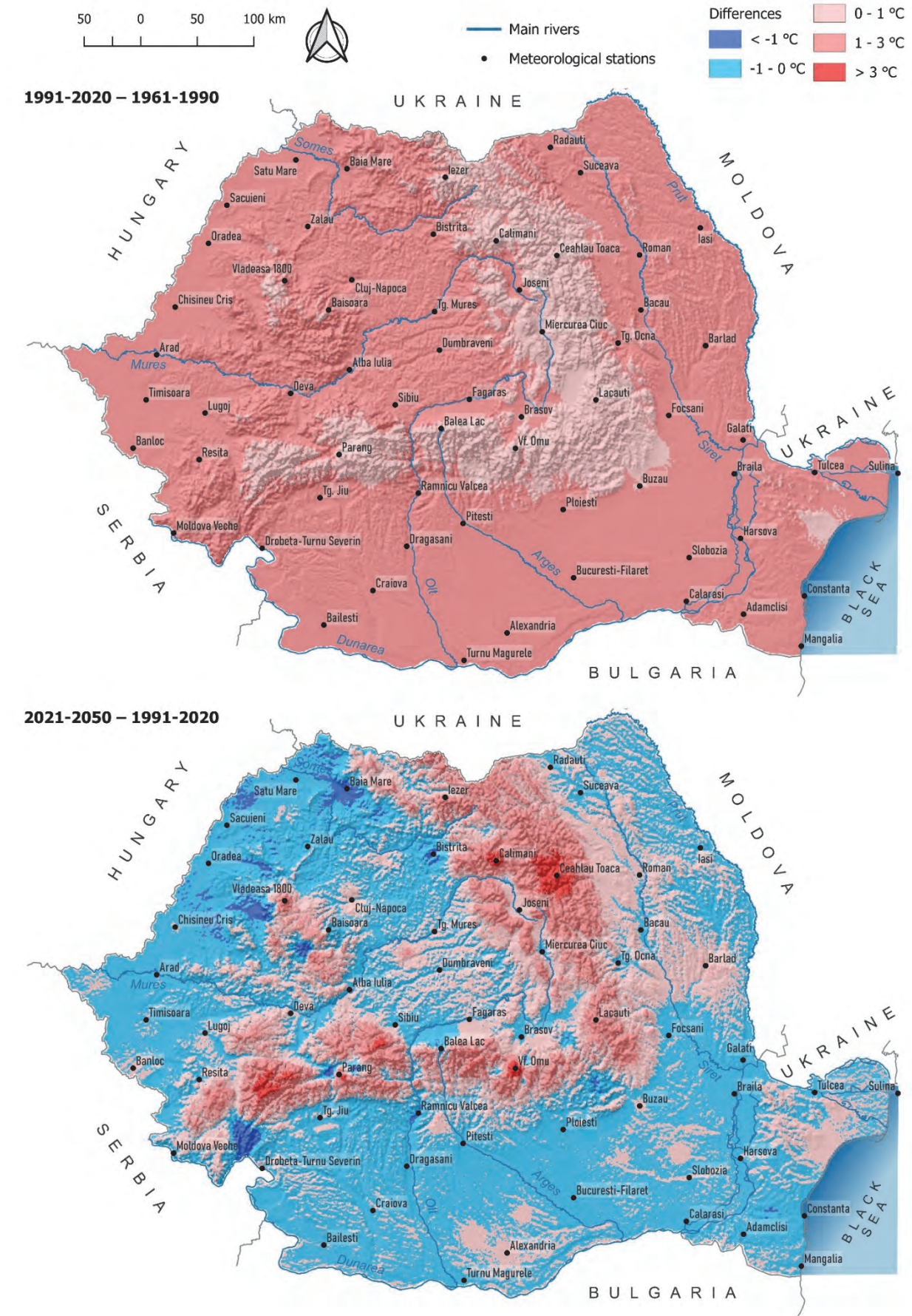
Area (sqkm)		
1961 - 1990	1991 - 2020	2021-2050
2	14518	6444
141210	161700	174204
68987	42033	47818
19805	13880	6003
4670	2700	452
264	107	17

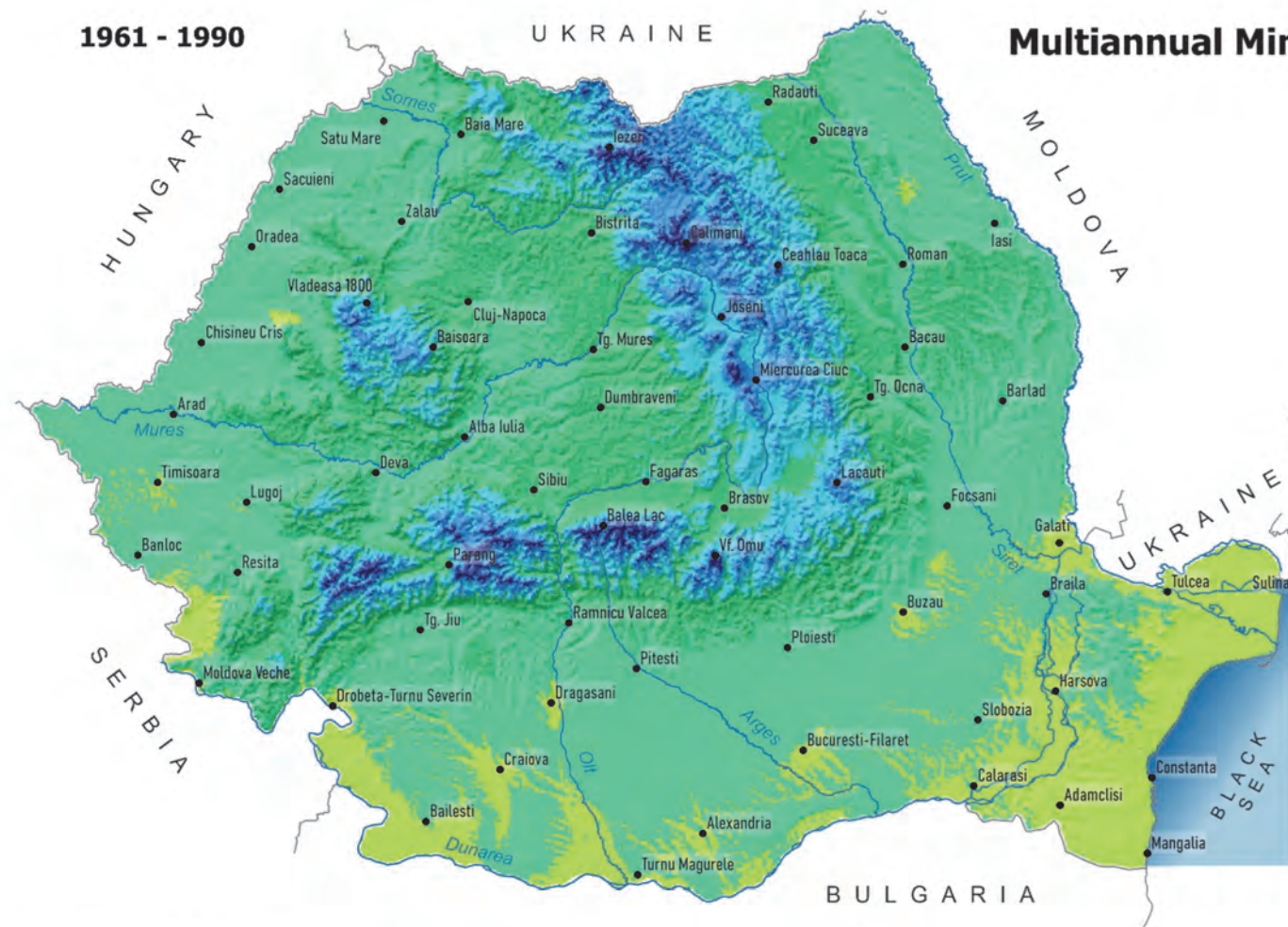


Combined elevation and maximum annual temperature profile



Difference maps

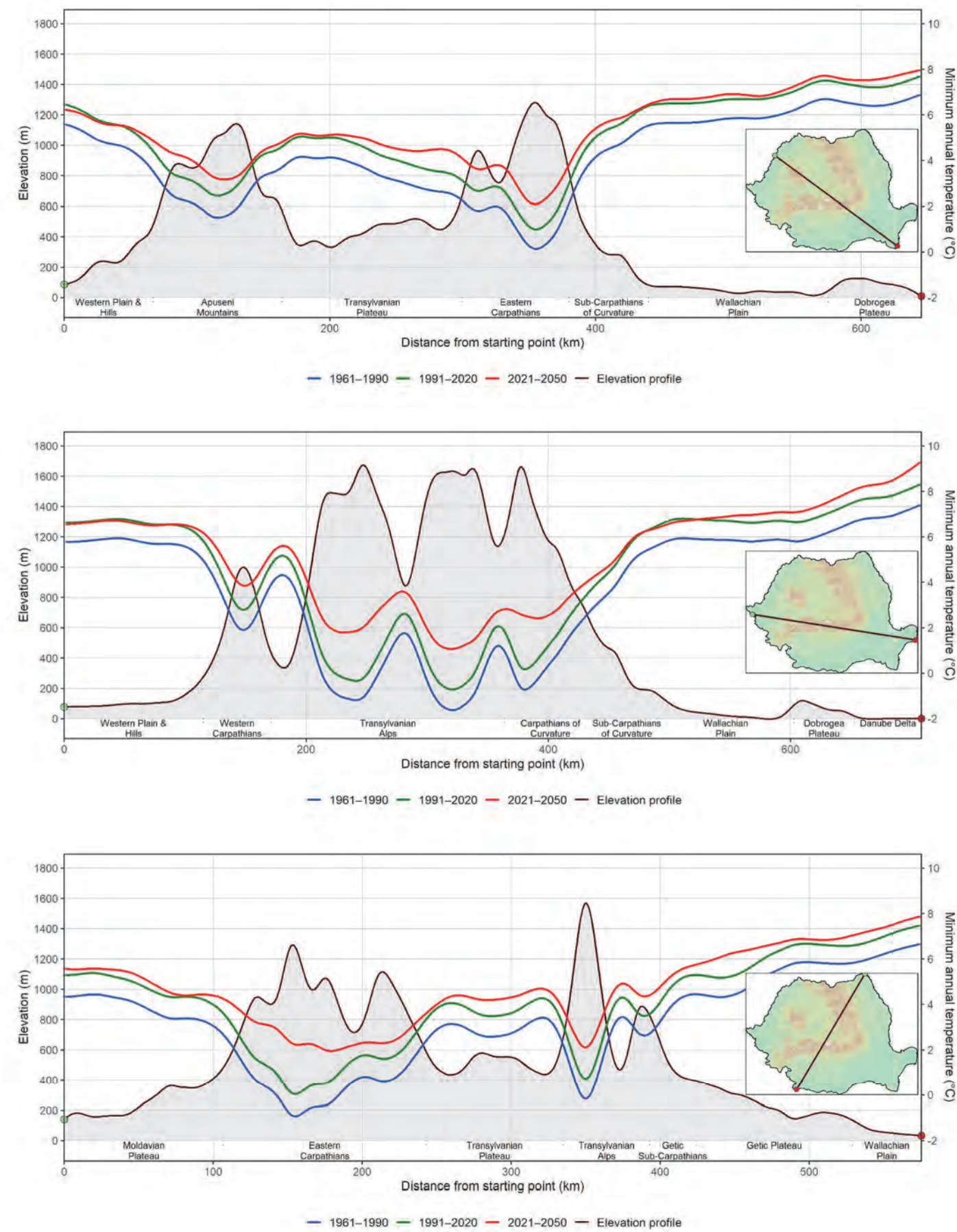




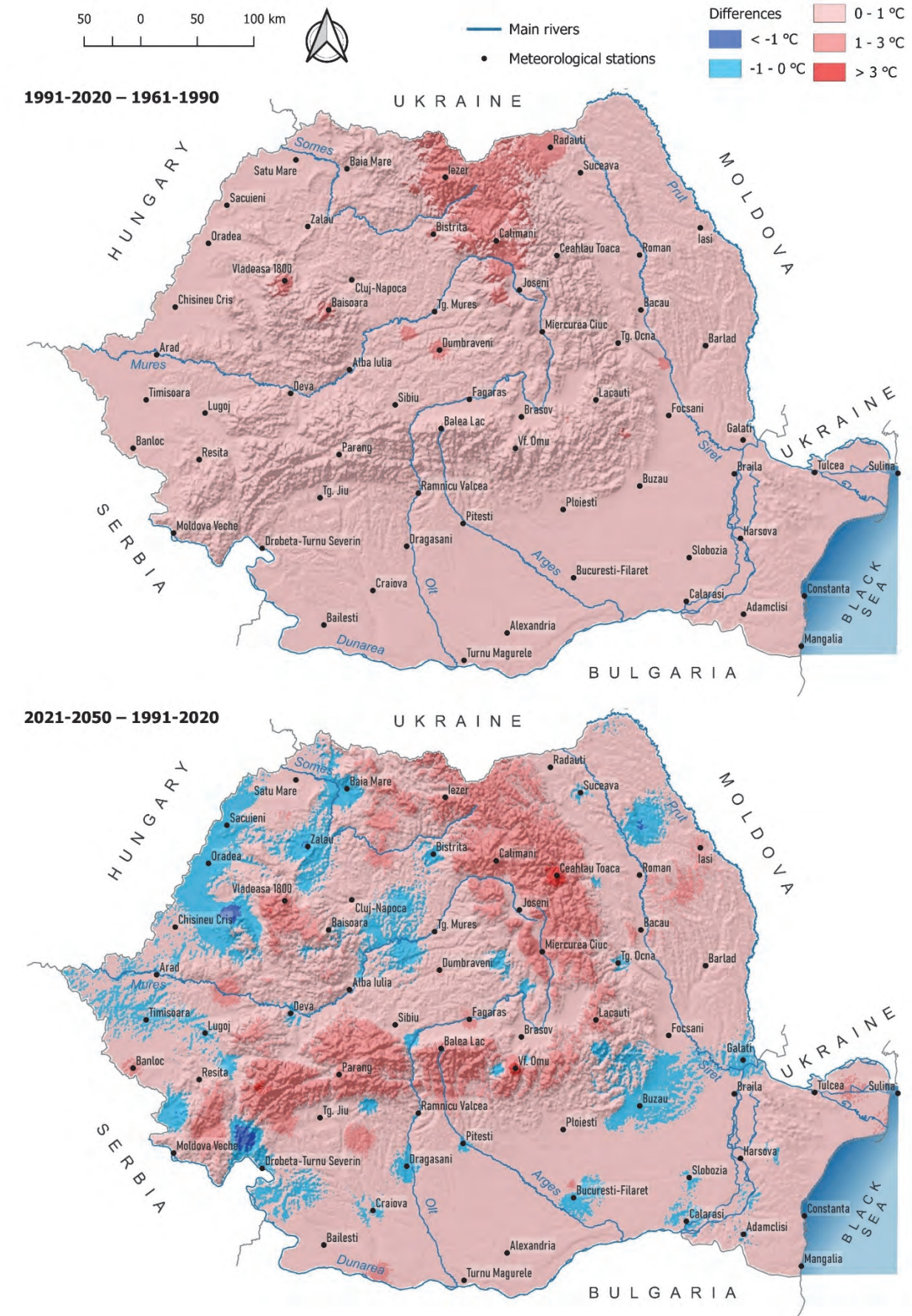
Area (sqkm)			
1961 - 1990	1991 - 2020	2021-2050	
28440	86867	99866	
109305	84042	87875	
57284	36103	34553	
24195	20493	12006	
13091	6586	623	
2623	847	15	



Combined elevation and minimum annual temperature profile

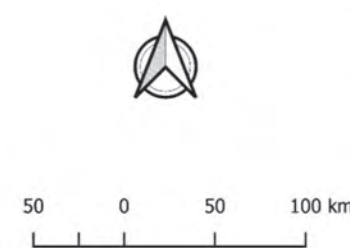


Difference maps

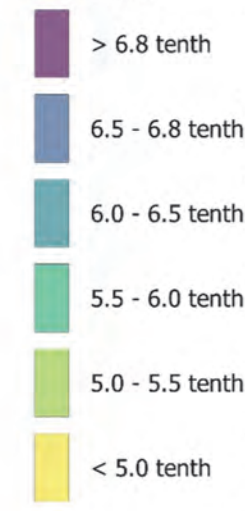




Multiannual Mean Cloud Cover

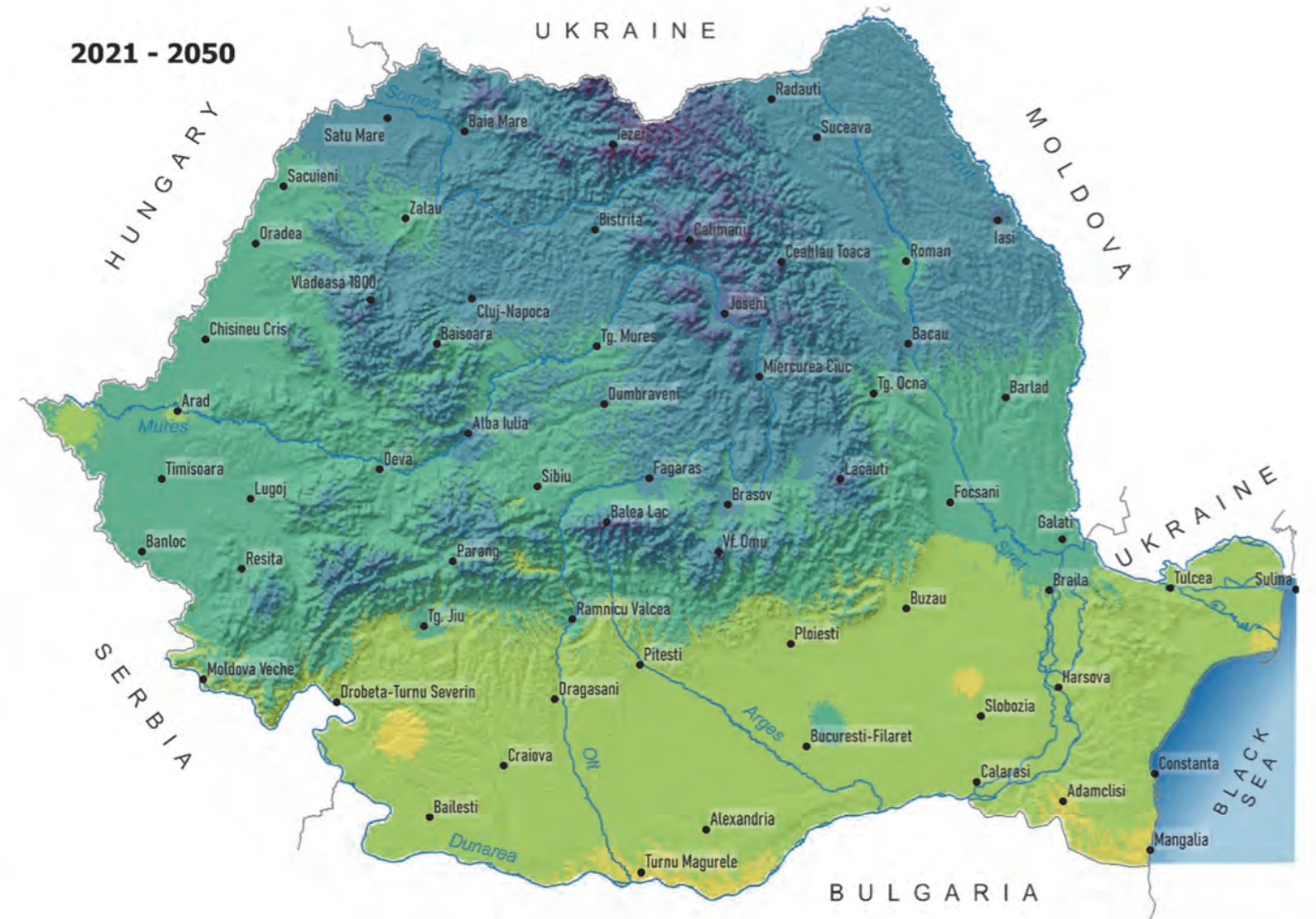


Cloud cover

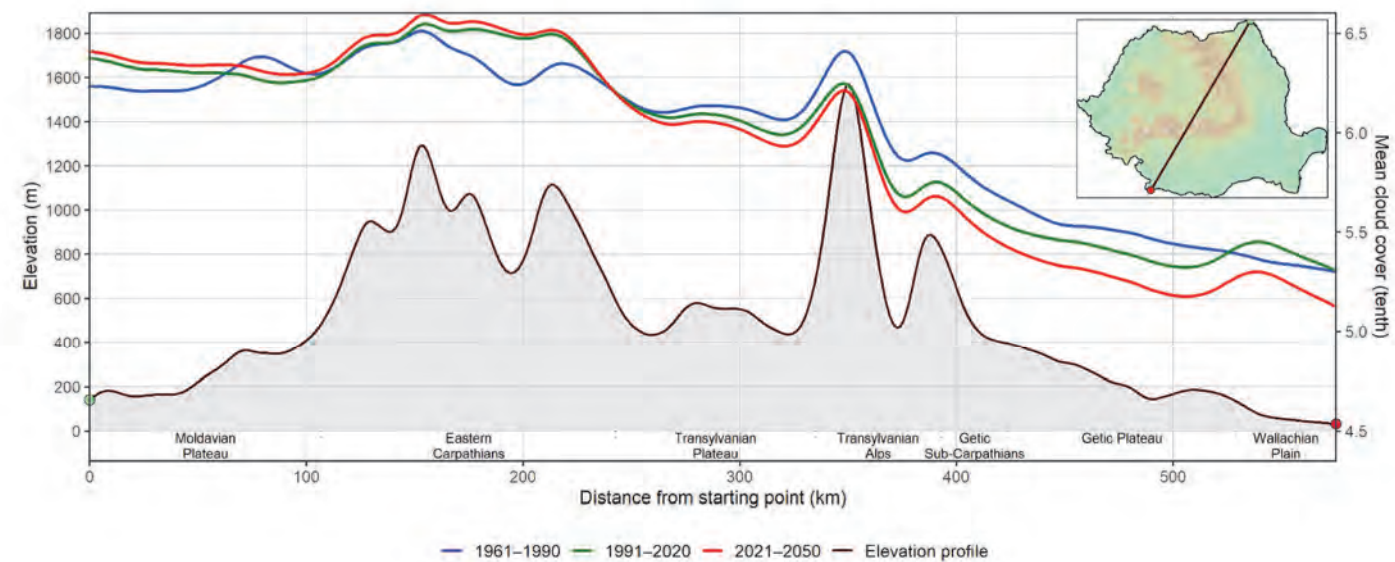
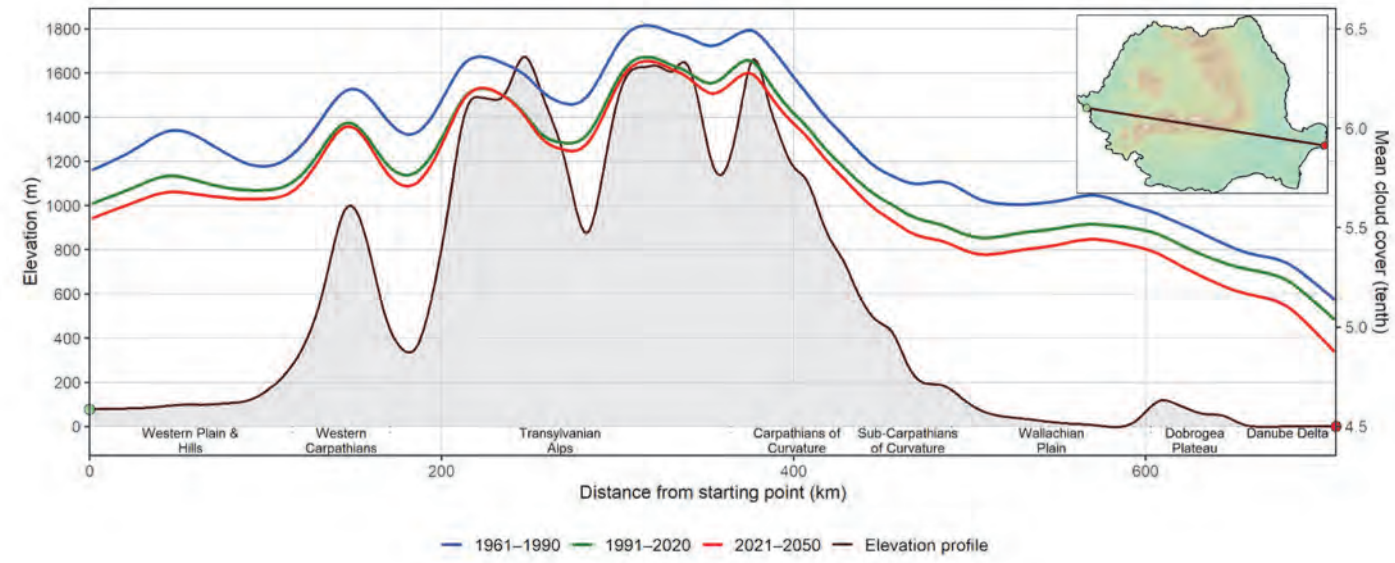
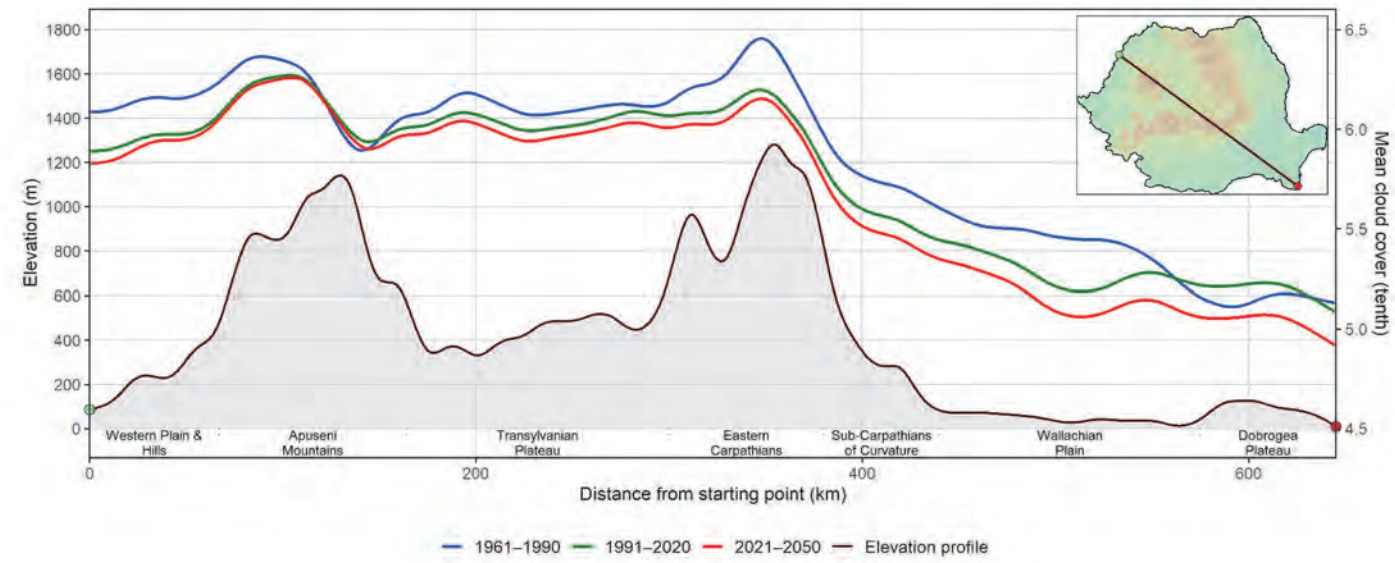


— Main rivers
• Meteorological stations

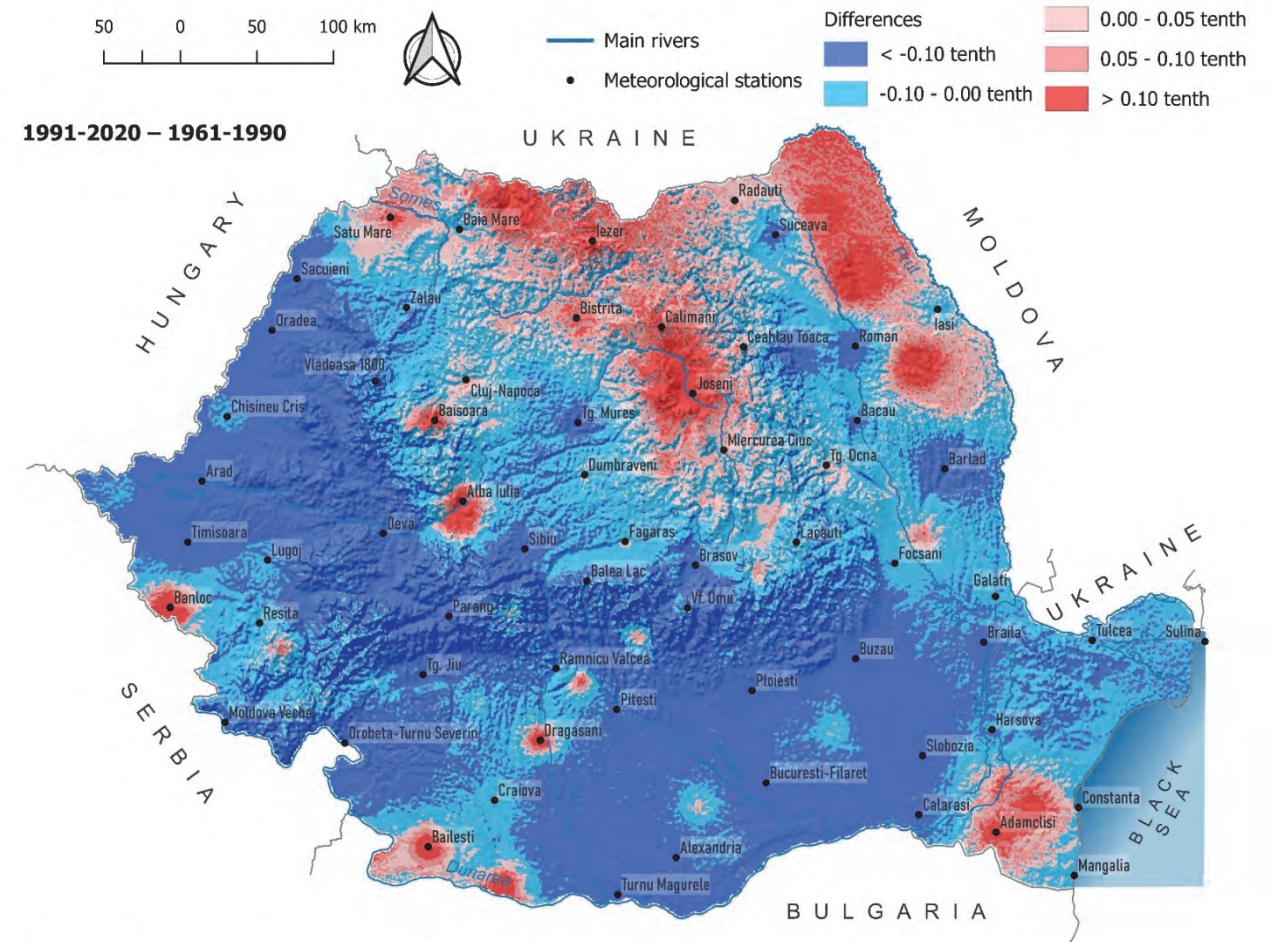
Area (sqkm)			
	1961 - 1990	1991 - 2020	2021-2050
> 6.8 tenths	111	226	677
6.5 - 6.8 tenths	5707	7518	9451
6.0 - 6.5 tenths	110289	85436	76458
5.5 - 6.0 tenths	74048	75810	72368
5.0 - 5.5 tenths	44674	65737	72651
< 5.0 tenths	109	211	3333



Combined elevation and mean cloud cover profile

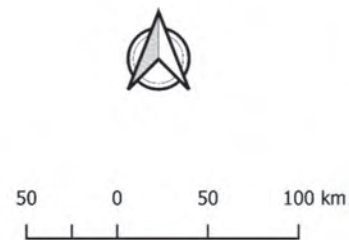


Difference maps

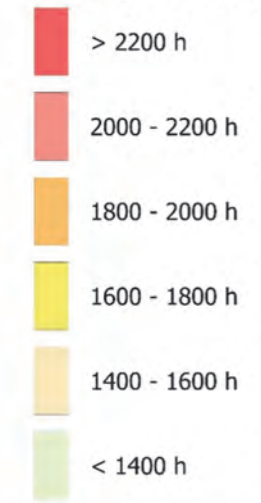




Multiannual Mean Sunshine Duration



Sunshine duration

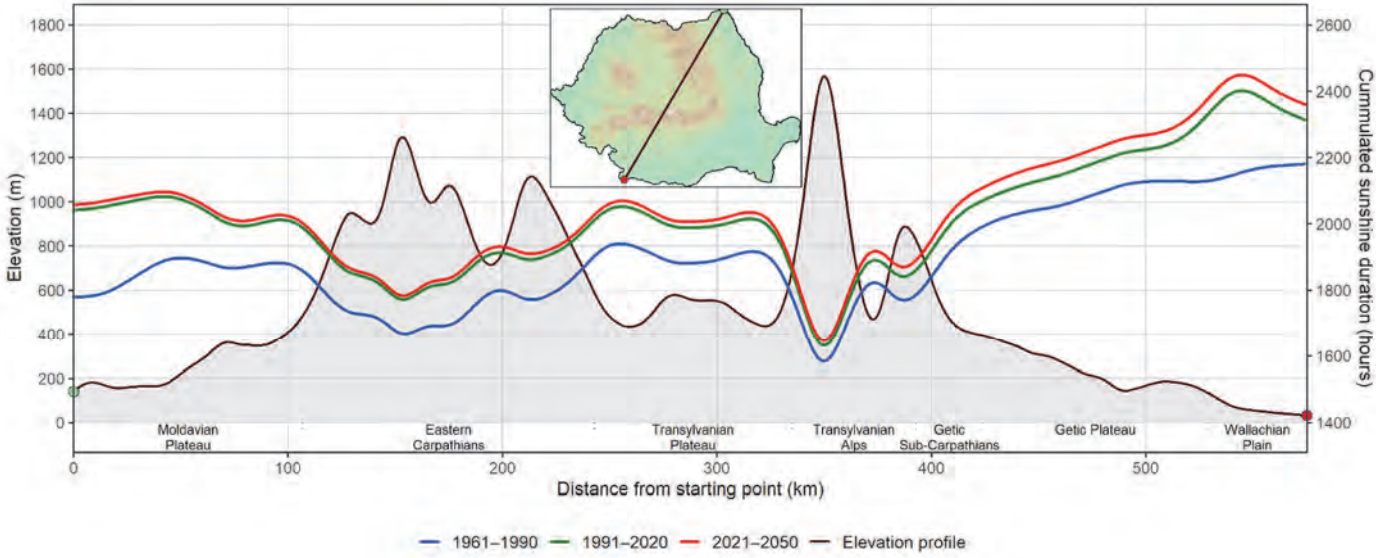
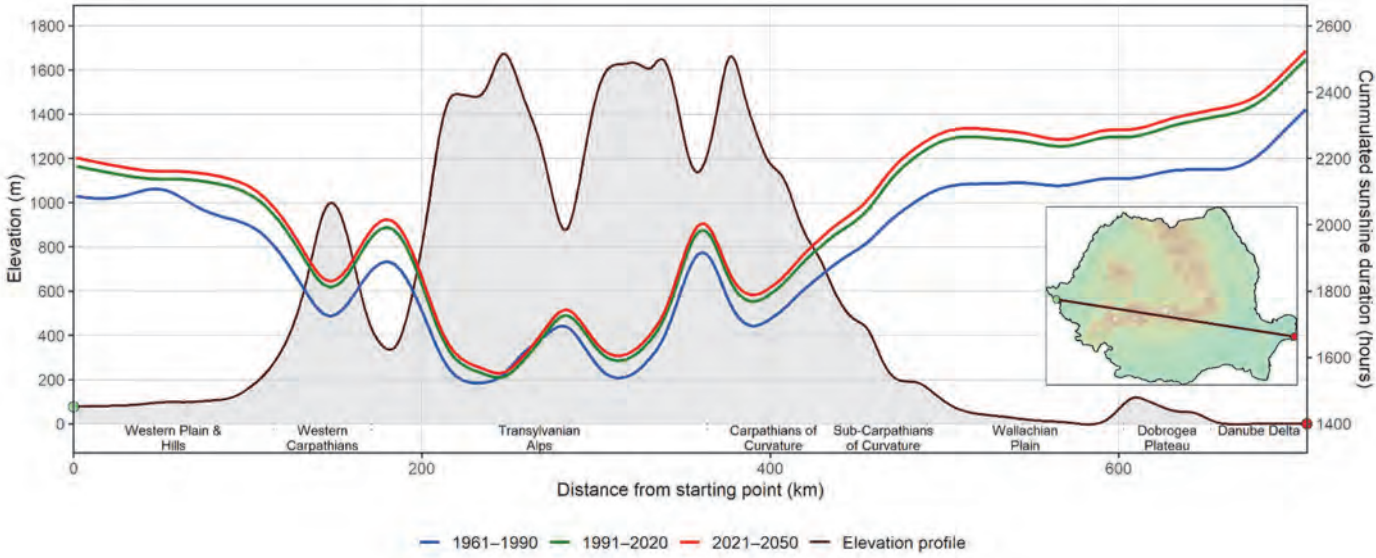
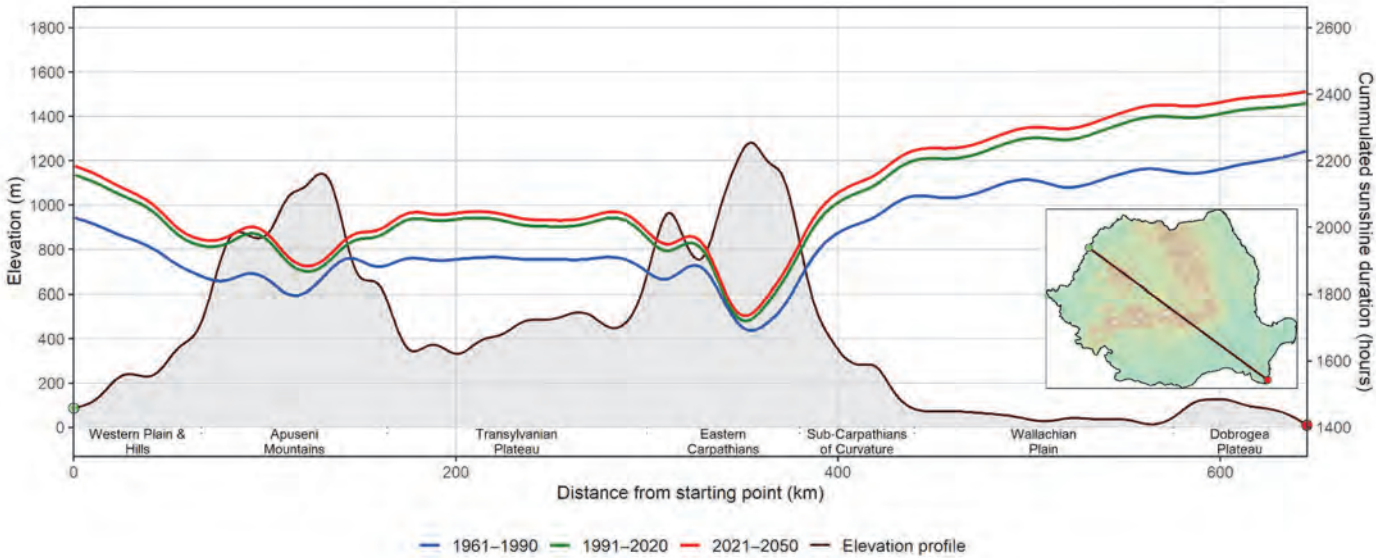


- Main rivers
- Meteorological stations

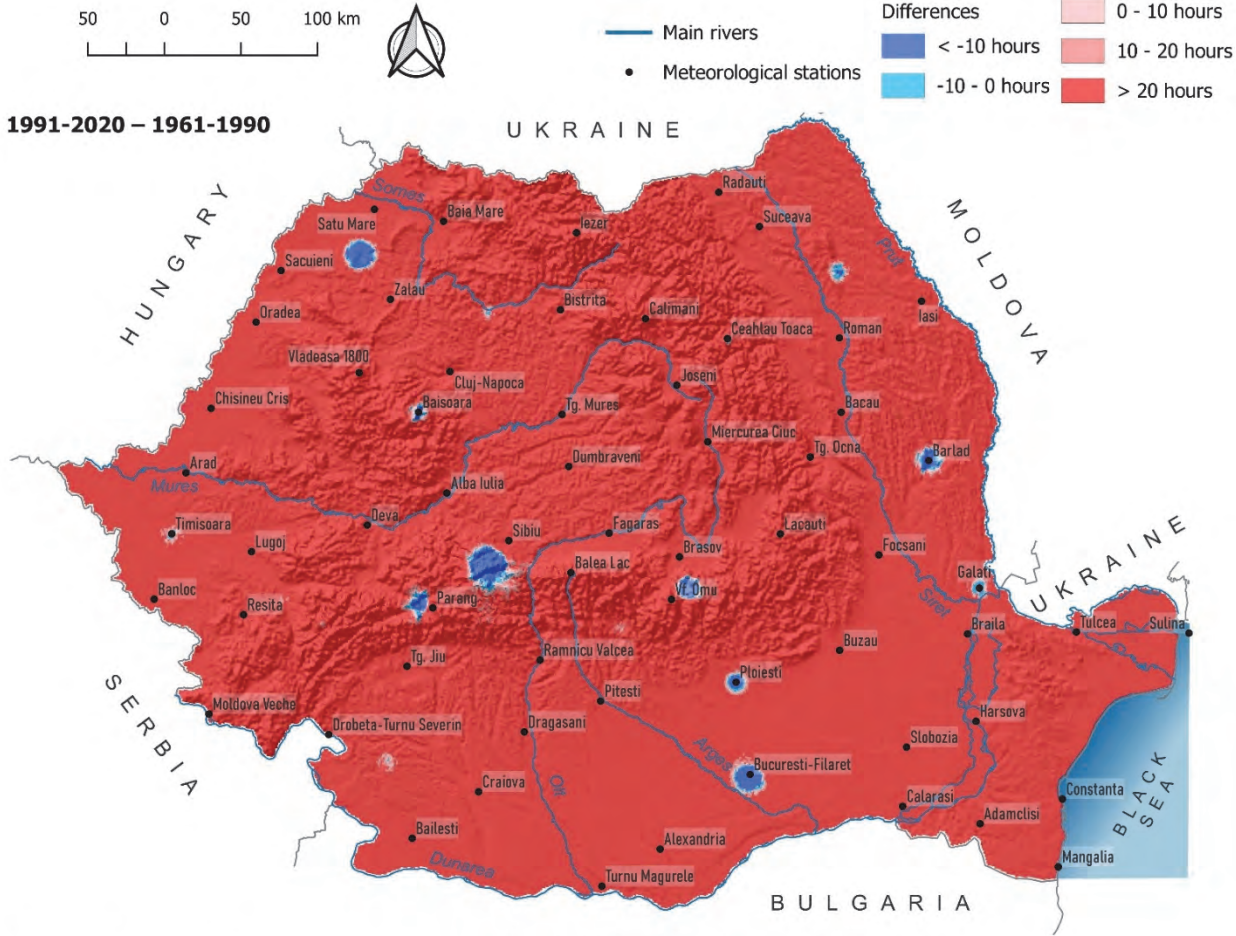
Area (sqkm)			
	1961 - 1990	1991 - 2020	2021-2050
> 2200 h	7049	63479	74414
2000 - 2200 h	91904	100832	97919
1800 - 2000 h	95064	50858	44962
1600 - 1800 h	32917	15800	14042
1400 - 1600 h	6537	3046	2787
< 1400 h	1467	923	814



Combined elevation and annually cummulated sunshine duration profile



Difference maps

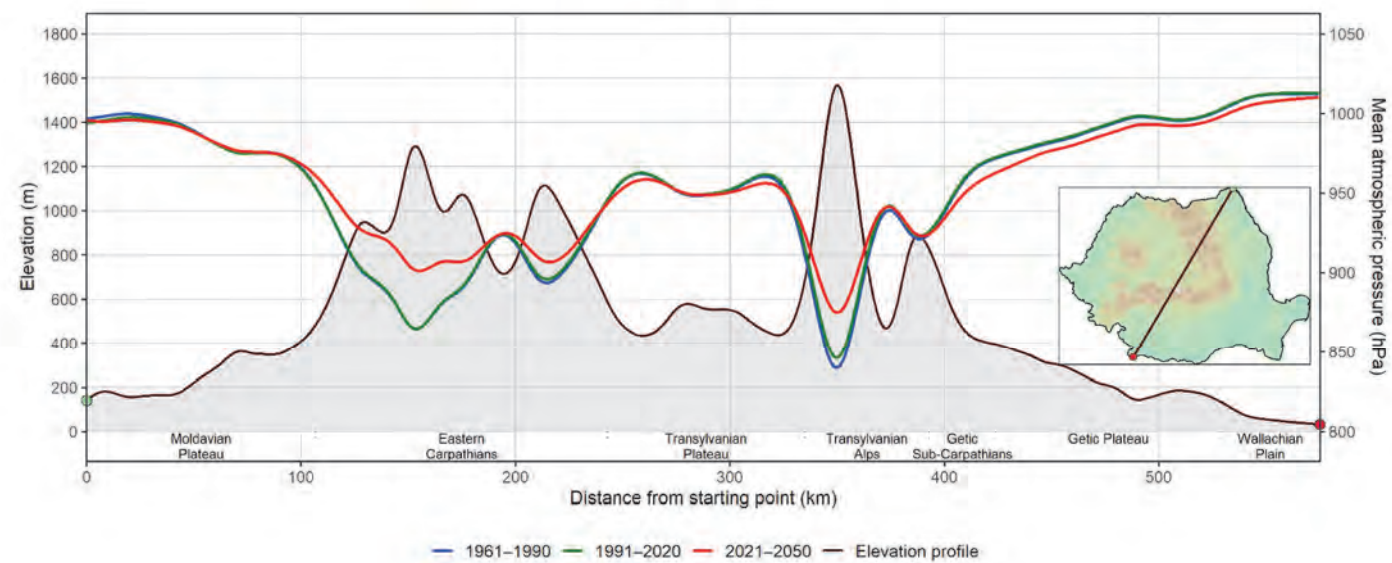
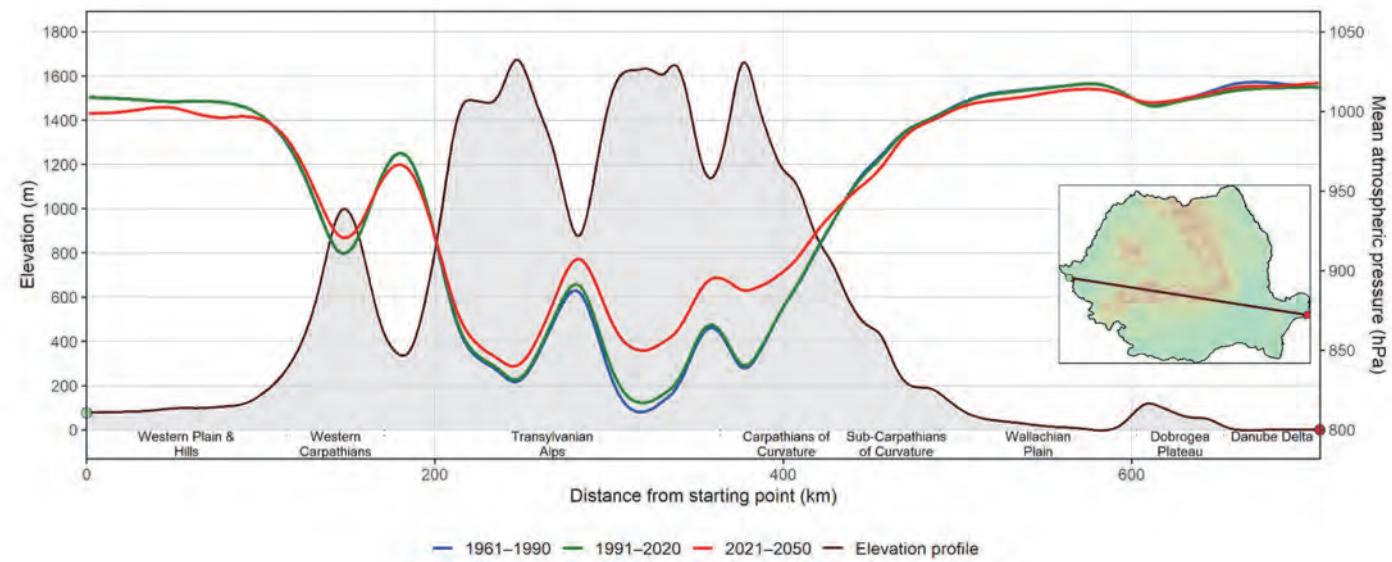
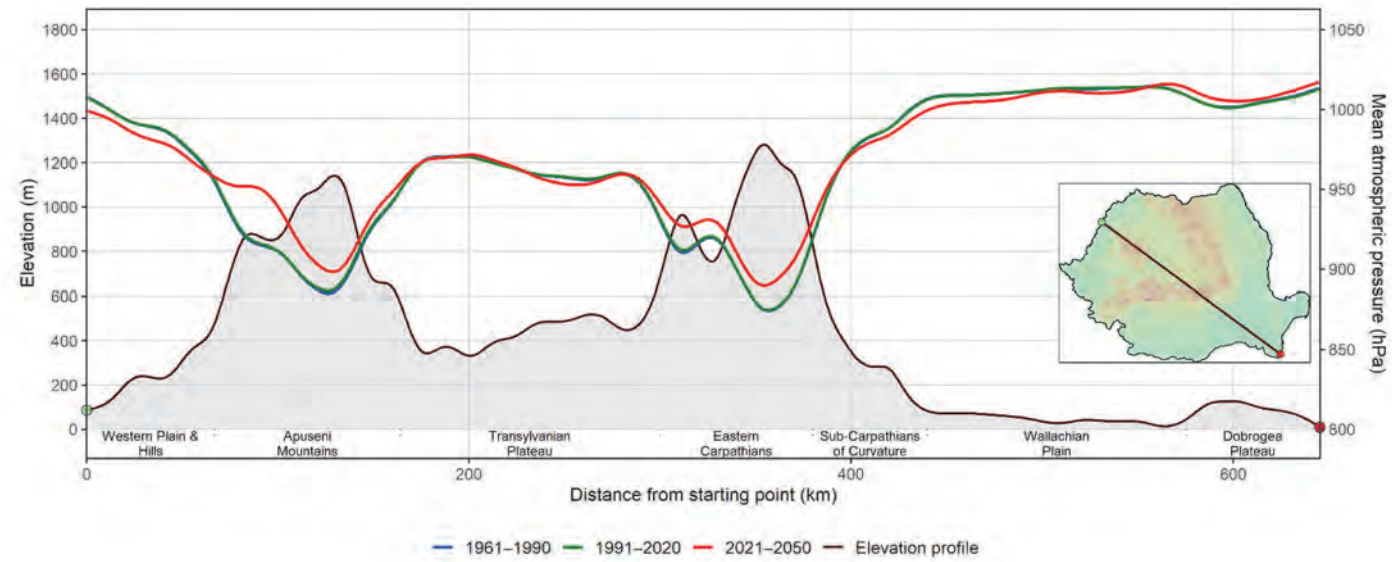




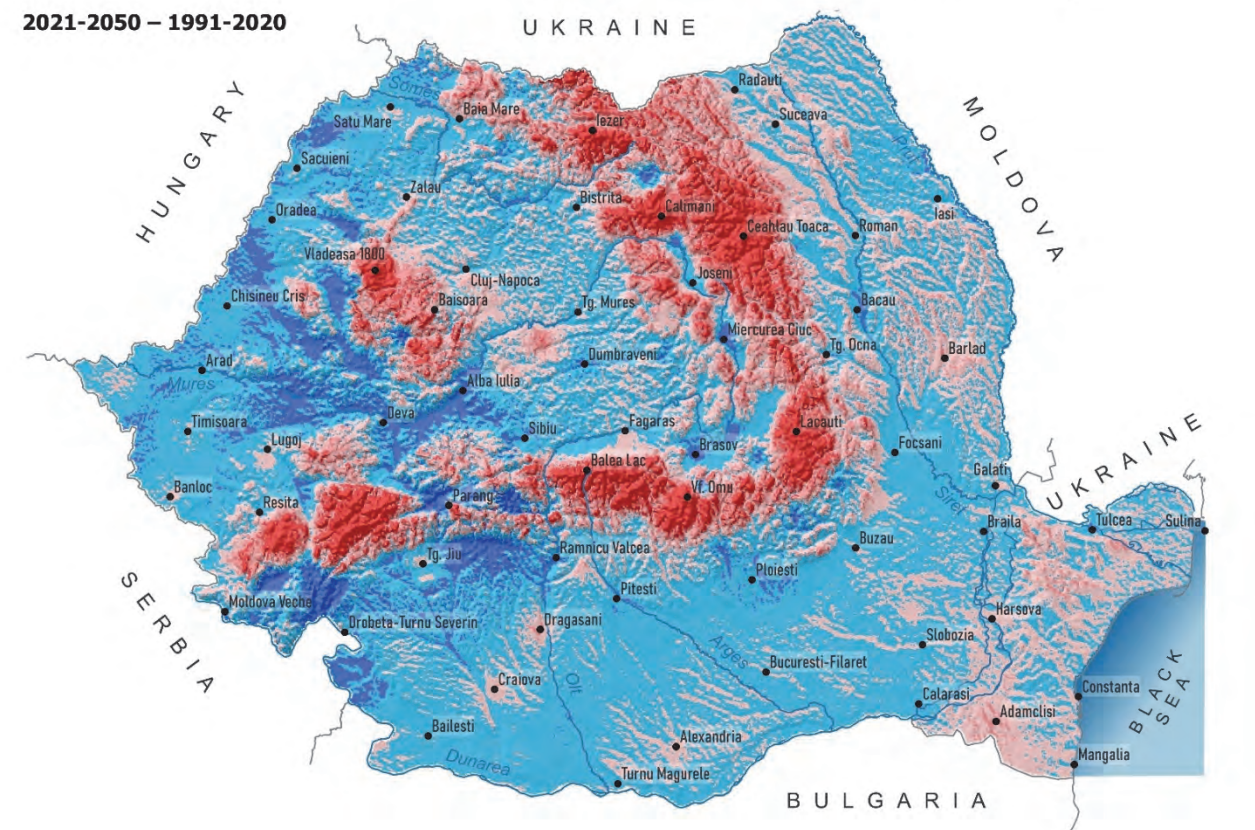
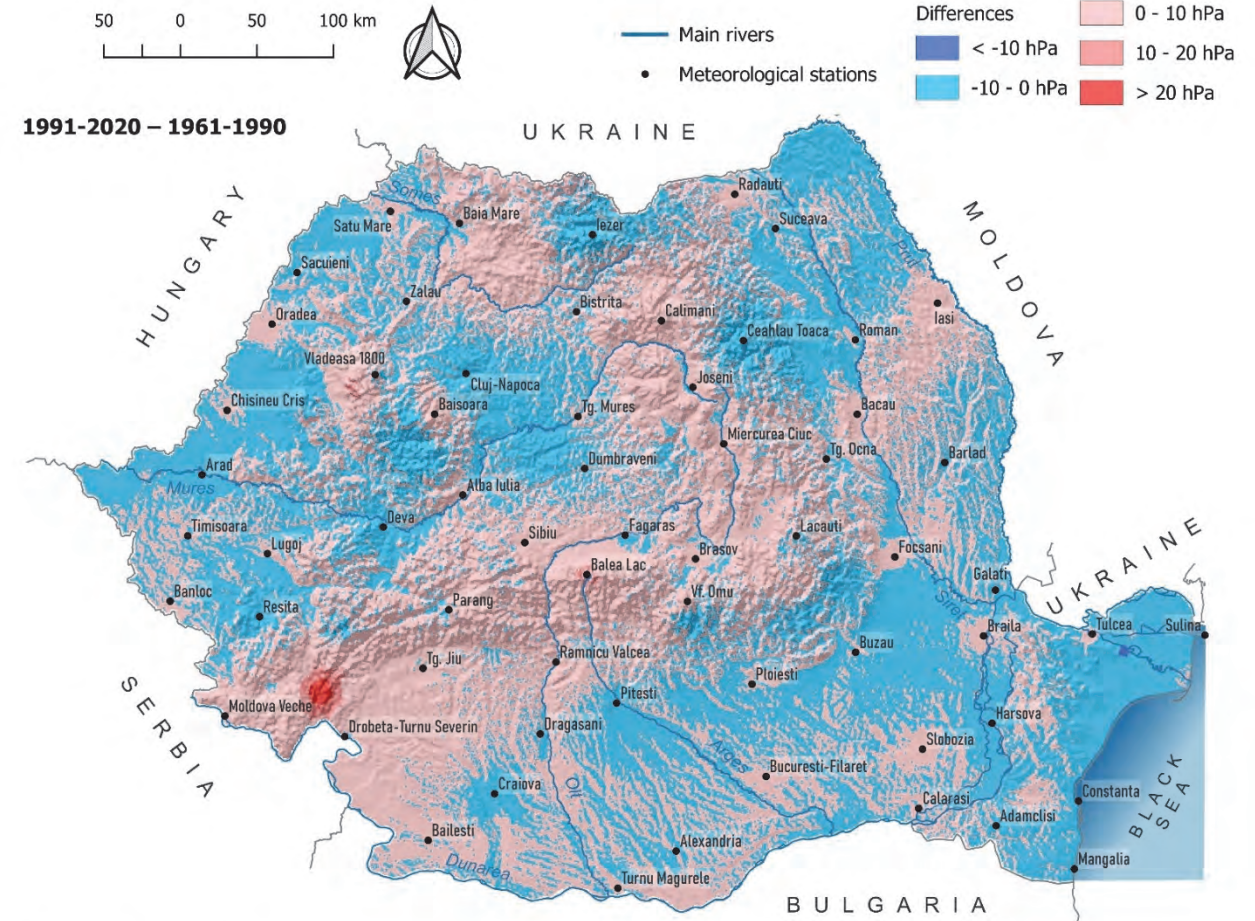
Area (sqkm)			
1961 - 1990	1991 - 2020	2021-2050	
74313	74000	56701	
99838	101111	118815	
35031	34745	43371	
19522	19192	13625	
5133	4923	2271	
1101	967	155	



Combined elevation and mean atmospheric pressure profile

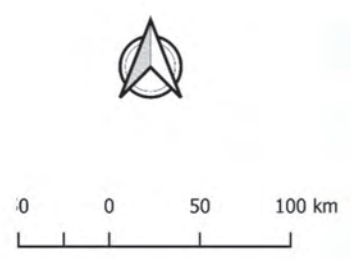


Difference maps





Multiannual Wind Speed

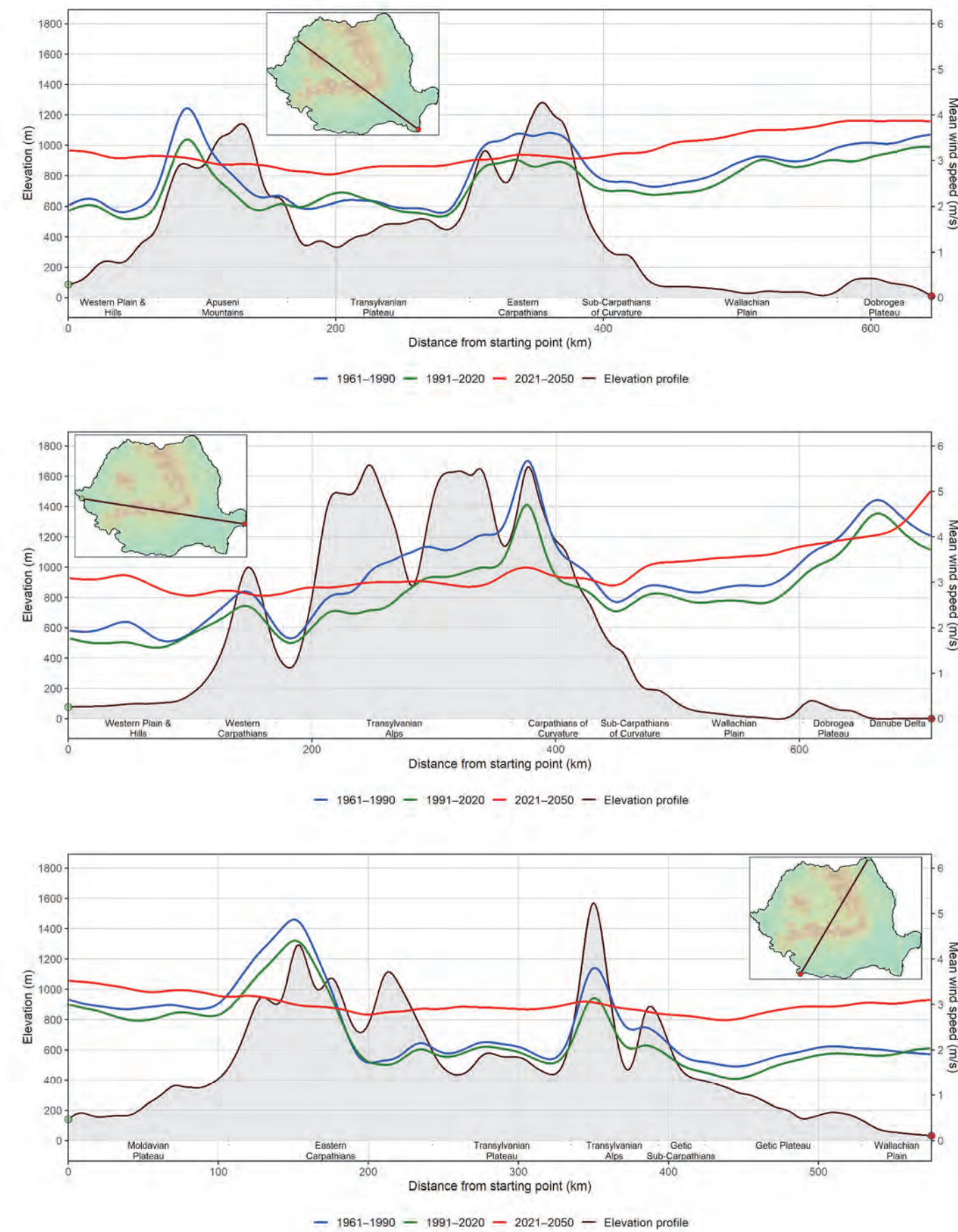


- Main rivers
- Meteorological stations

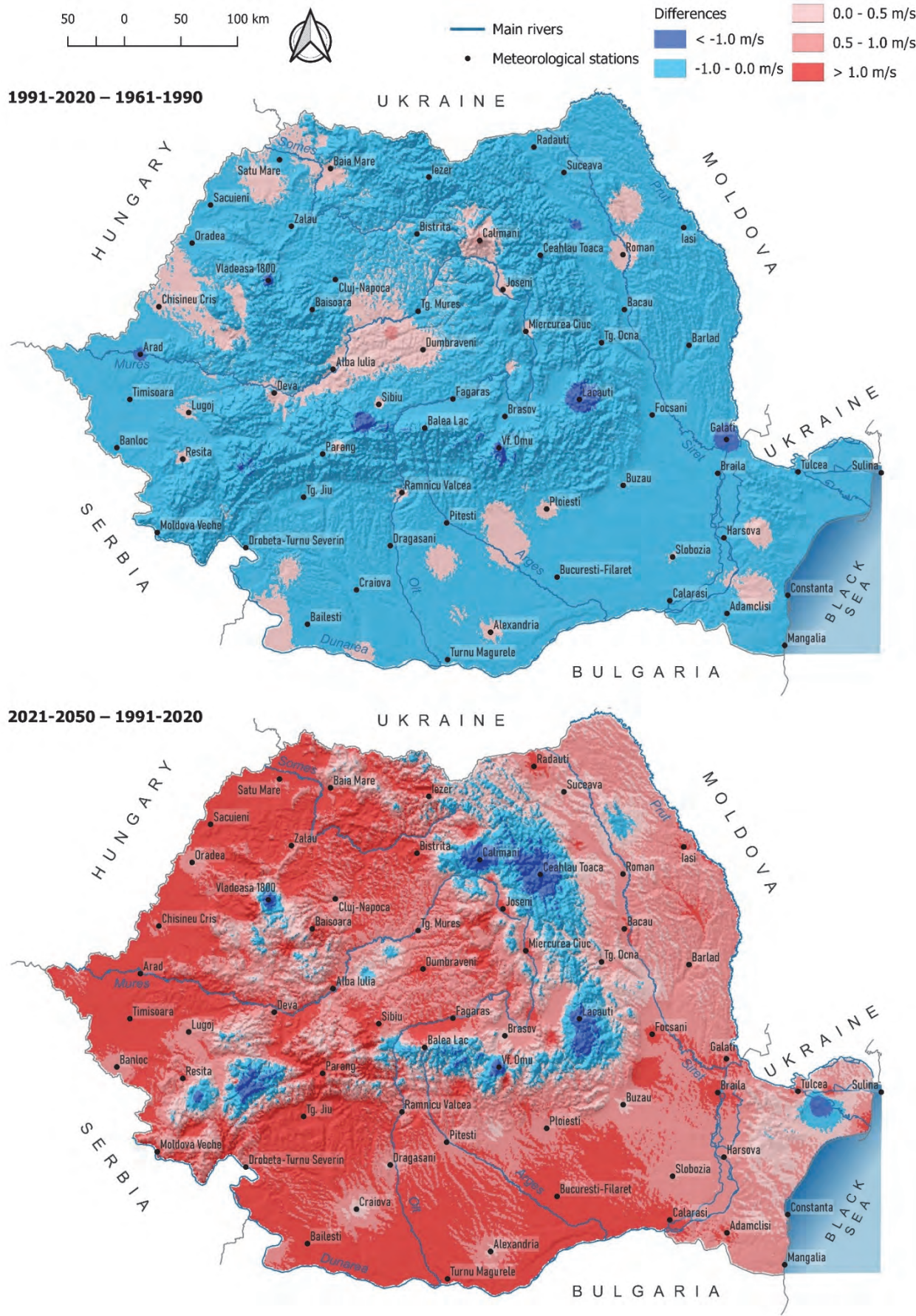
Area (sqkm)		
1961 - 1990	1991 - 2020	2021-2050
1086	435	0
2329	1172	14
11244	4846	3837
60611	34094	132575
98886	108497	98512
60782	85894	0

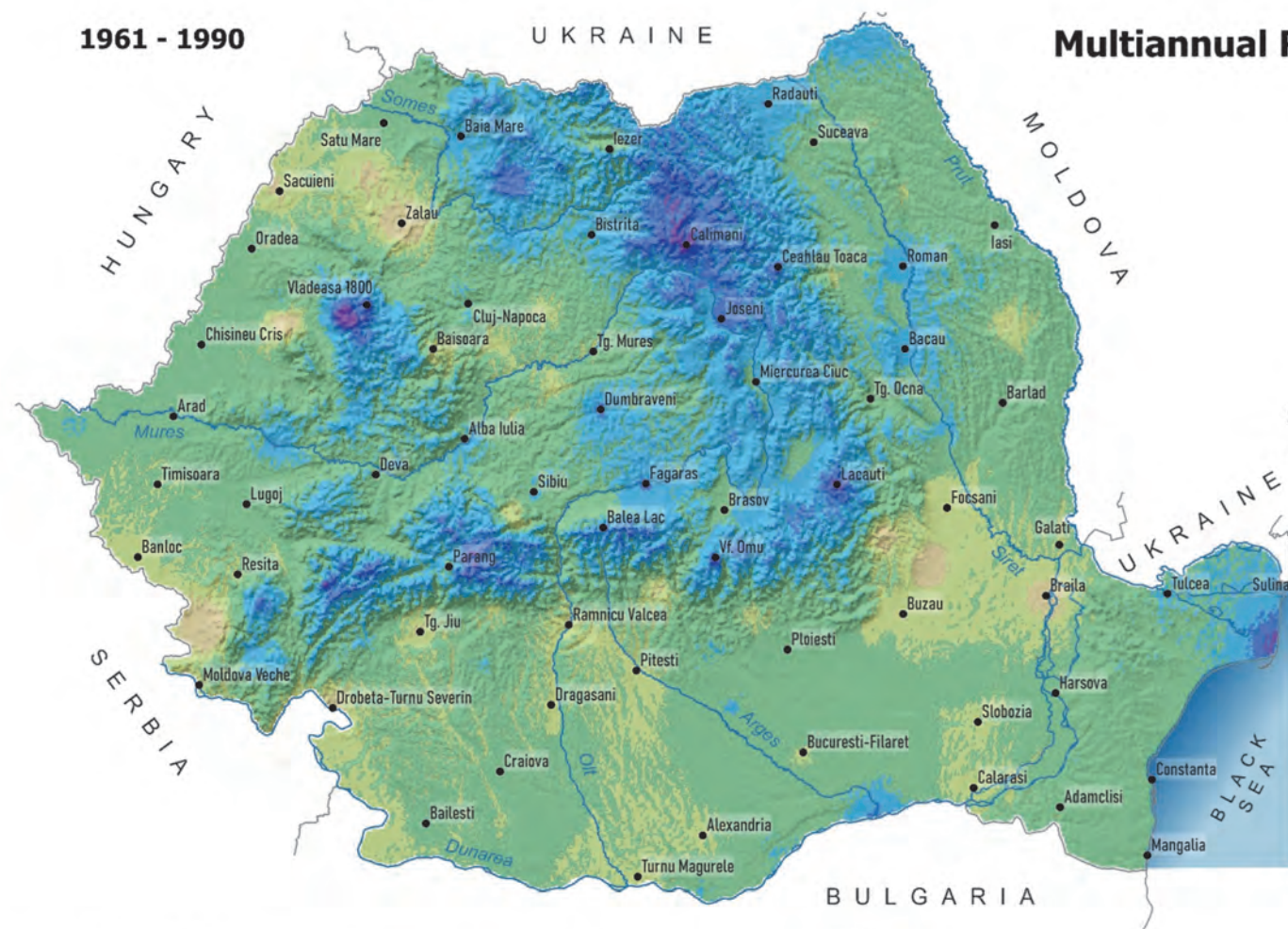


Combined elevation and mean wind speed profile



Difference maps



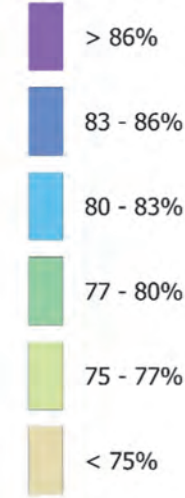


Multiannual Relative Humidity



50 0 50 100 km

Relative humidity



— Main rivers

• Meteorological stations

Area (sqkm)

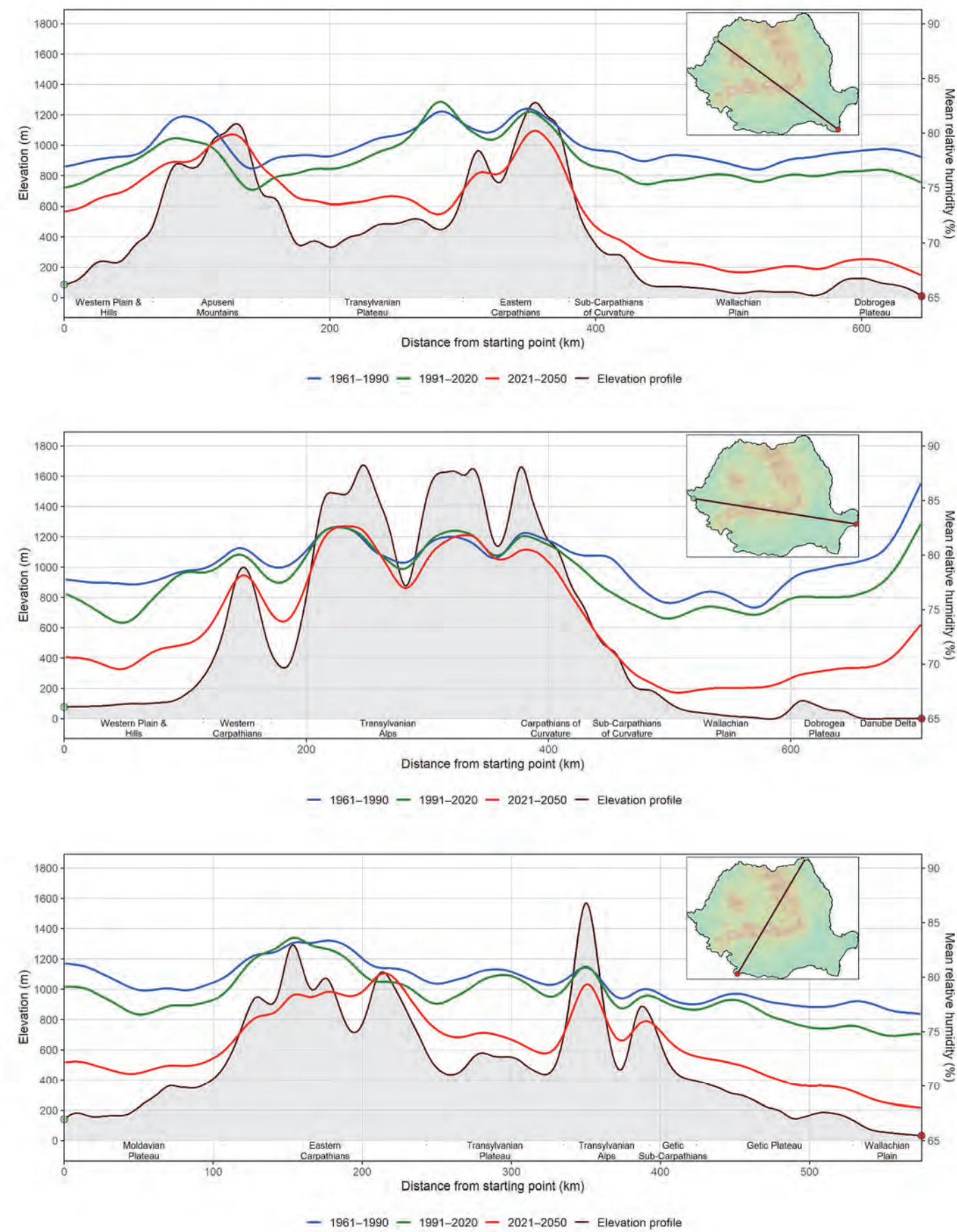
	1961 - 1990	1991 - 2020	2021-2050
> 86%	468	391	339
83 - 86%	8955	6833	2301
80 - 83%	51356	30515	9494
77 - 80%	142451	83506	24406
75 - 77%	28878	90128	27329
< 75%	2830	23565	171069



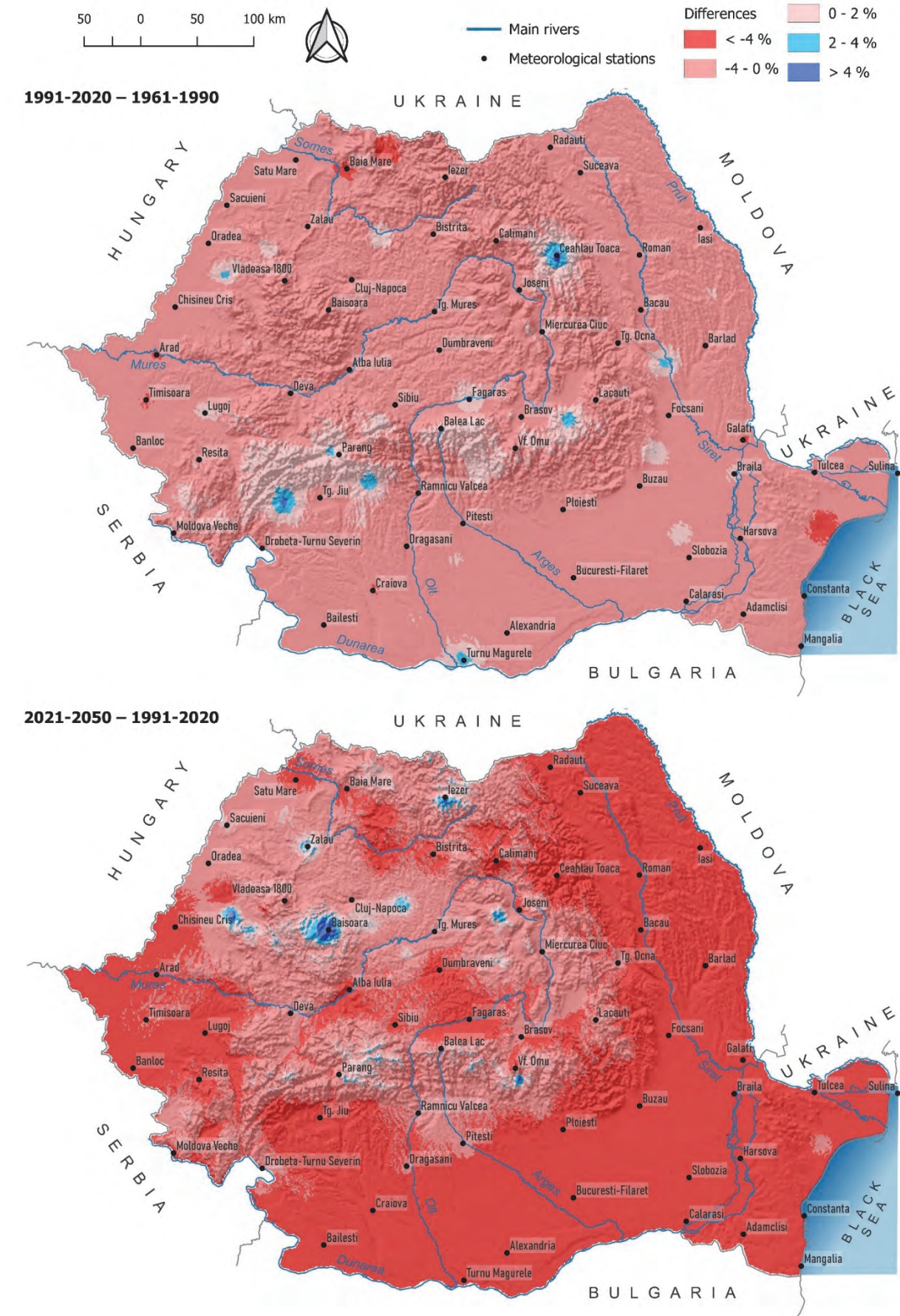
2021 - 2050

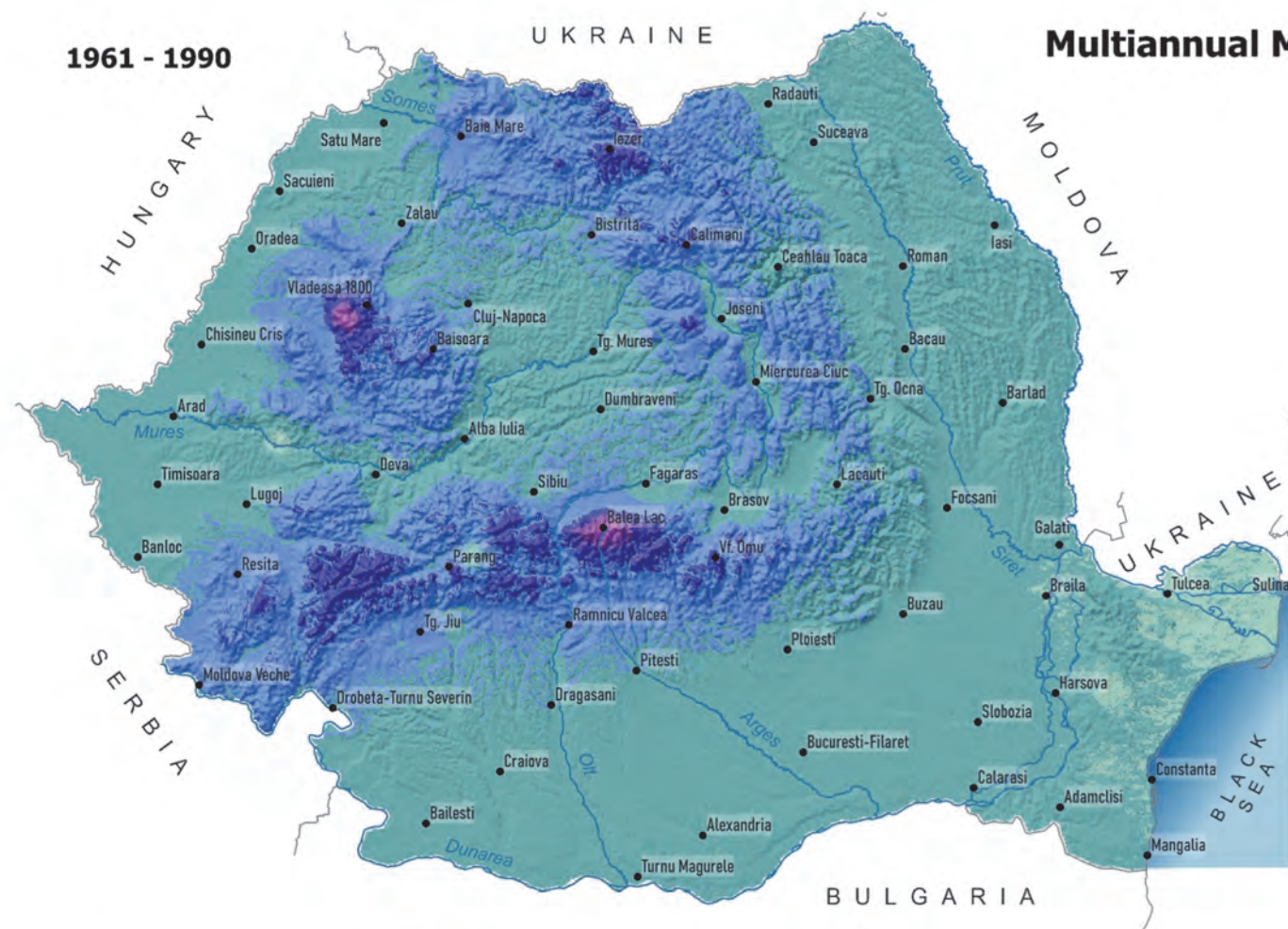


Combined elevation and mean relative humidity profile

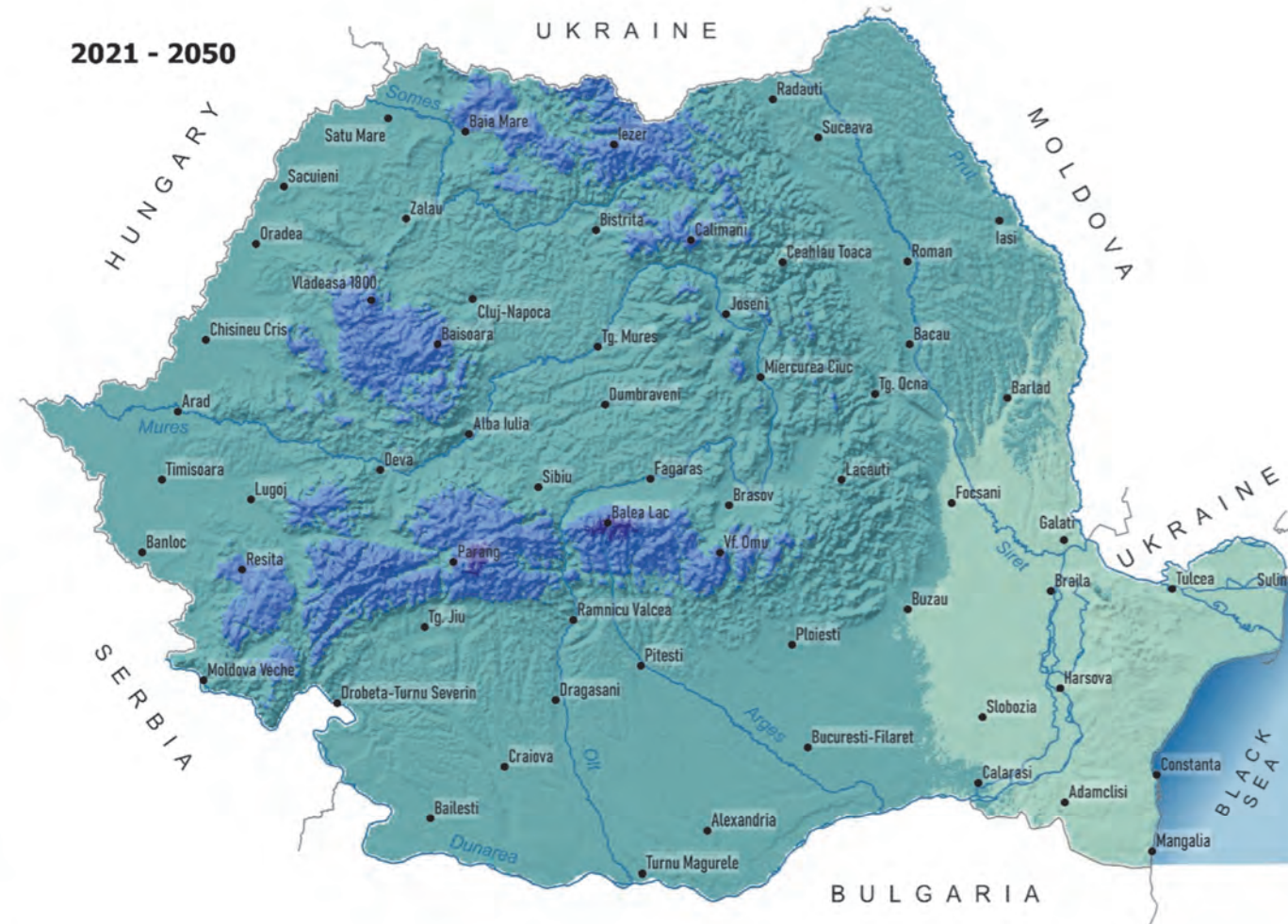
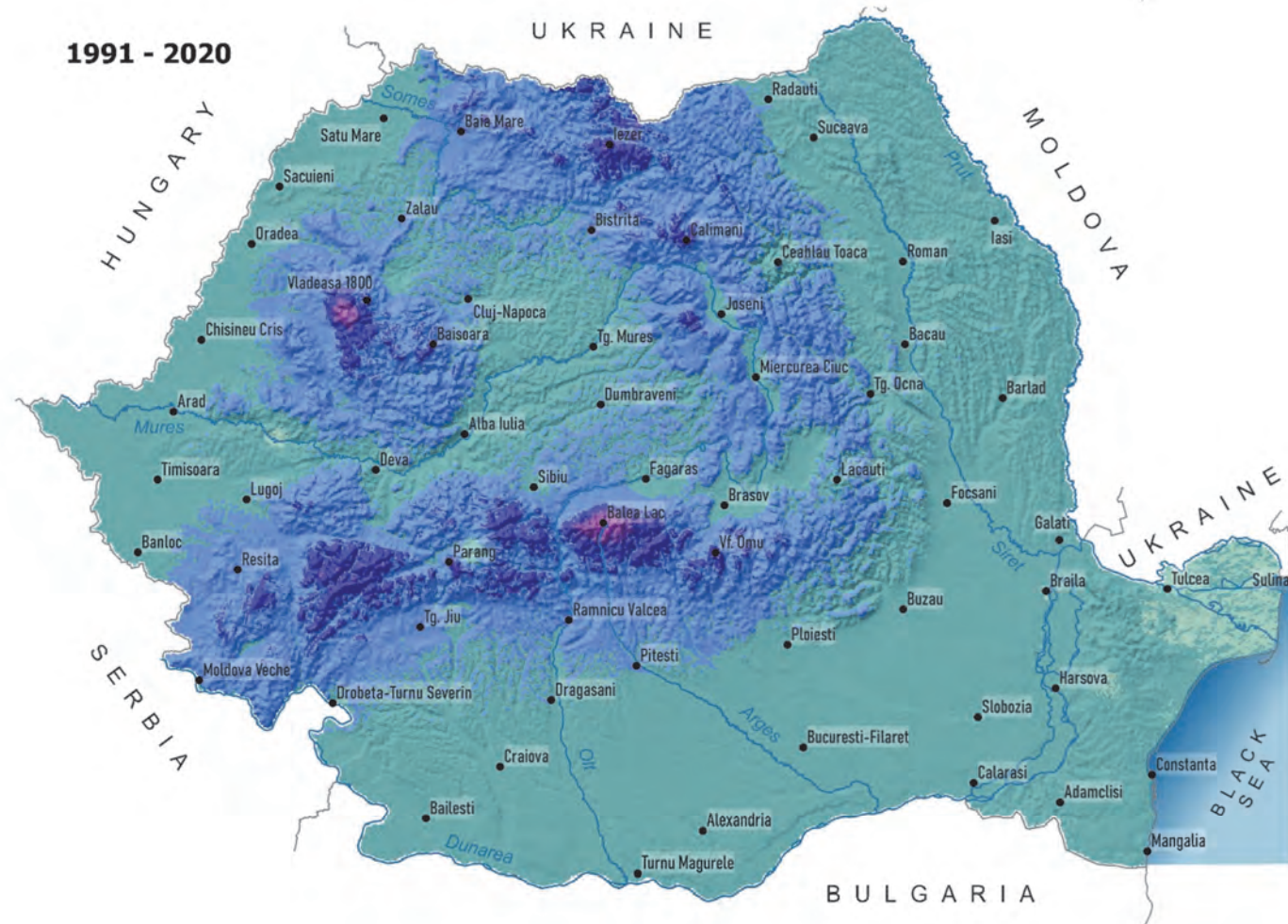


Difference maps

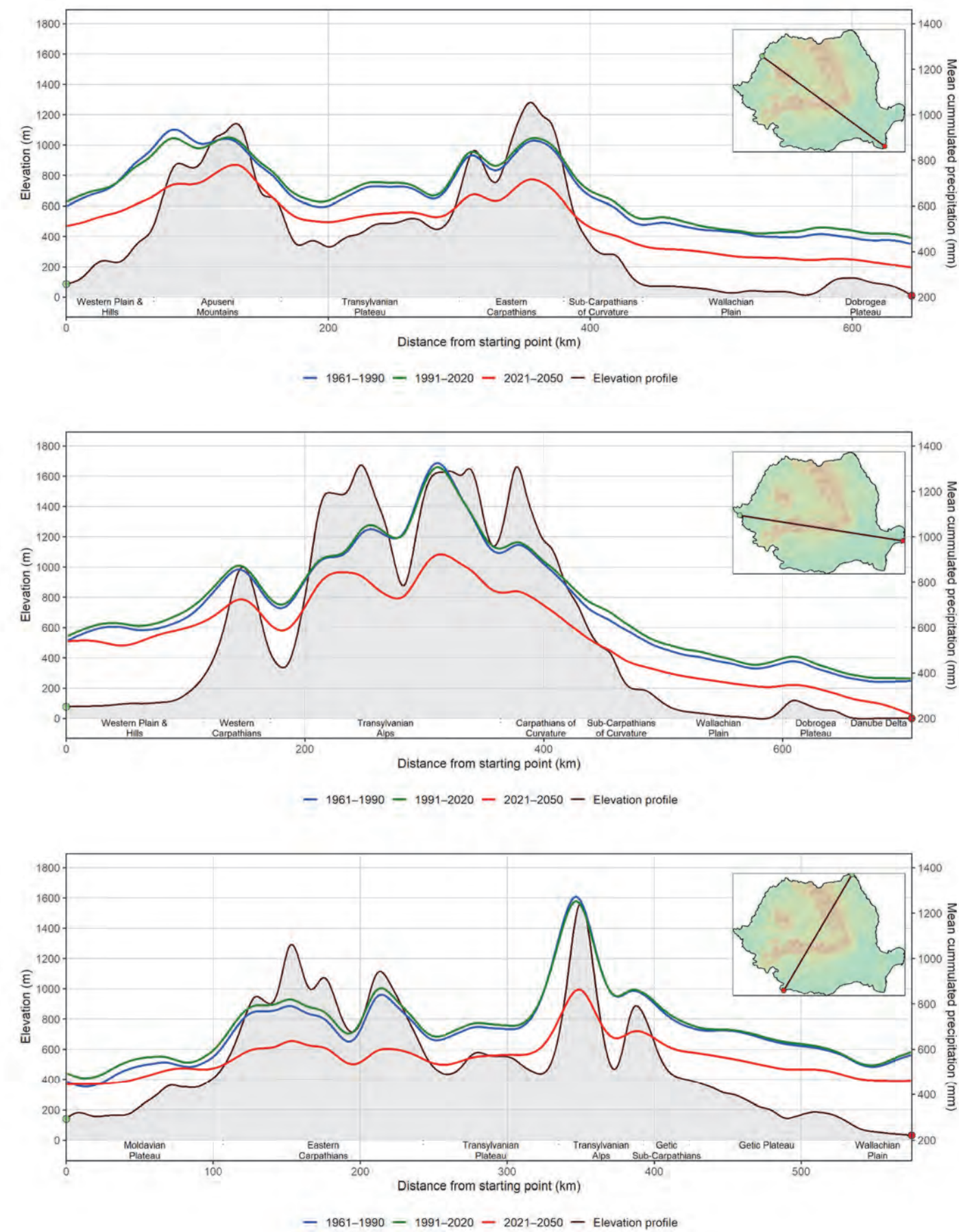




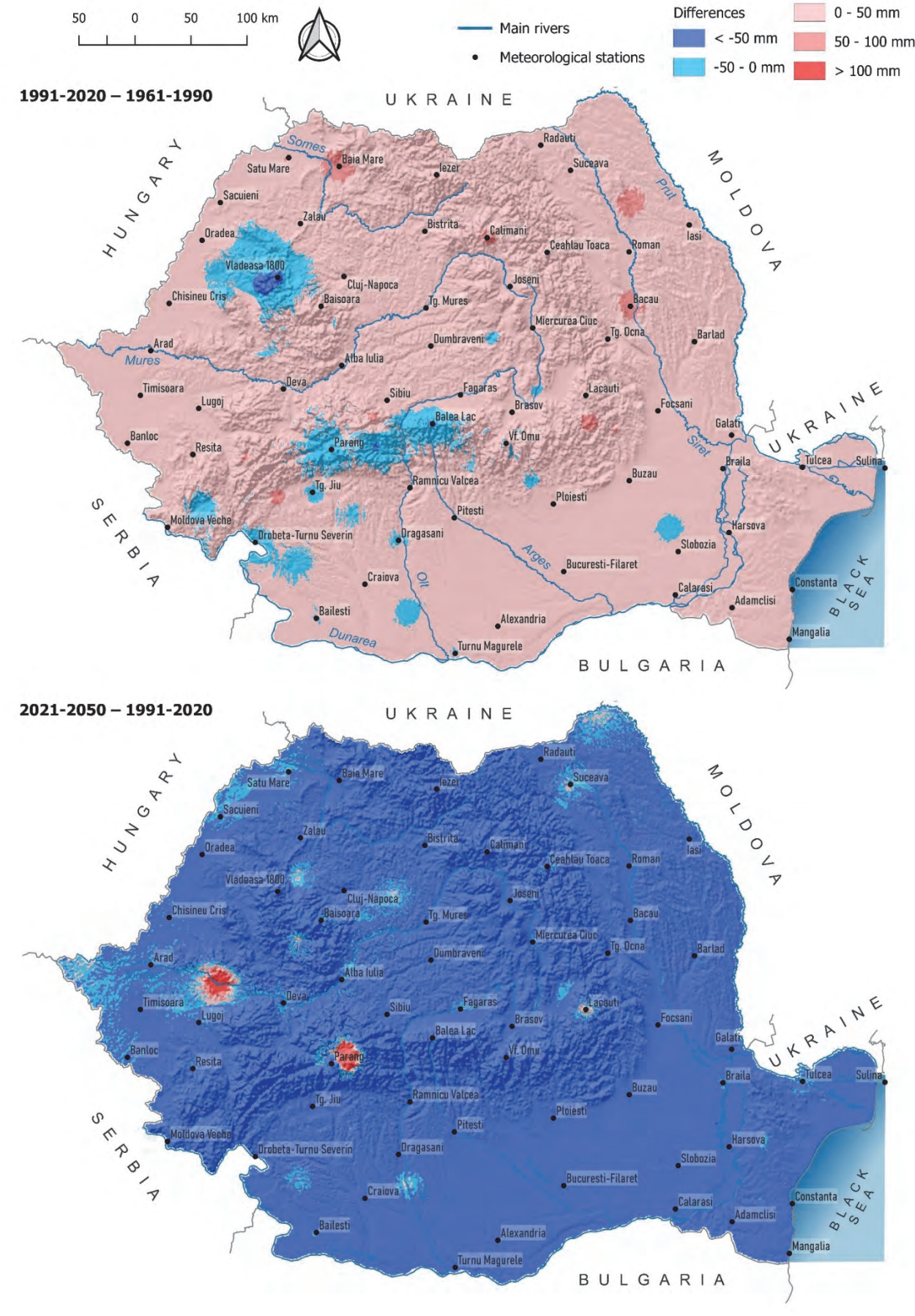
Area (sqkm)			
1961 - 1990	1991 - 2020	2021-2050	
169	111	0	
588	597	0	
7040	7824	390	
66894	75661	23005	
154736	147699	178797	
5511	3046	32746	



Combined elevation and annually cumulated precipitation profile

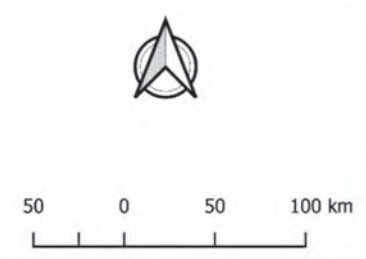


Difference maps

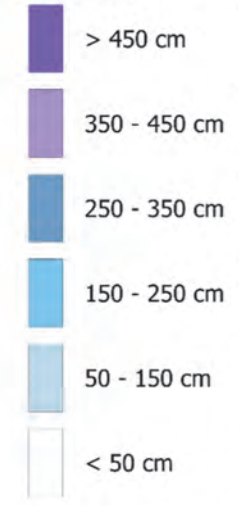




Multiannual Mean Snow Depth October - April



Snow depth

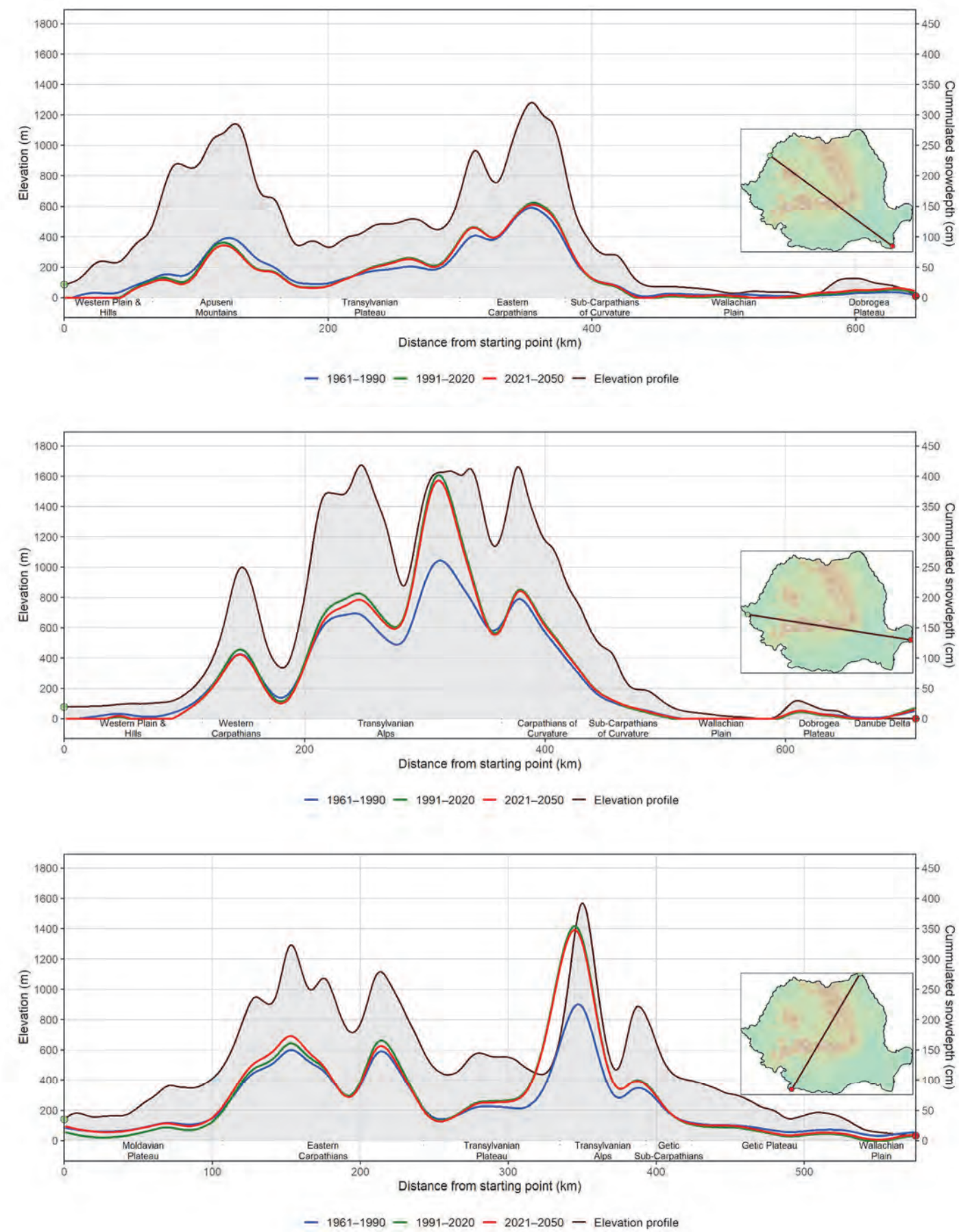


- Main rivers
- Meteorological stations

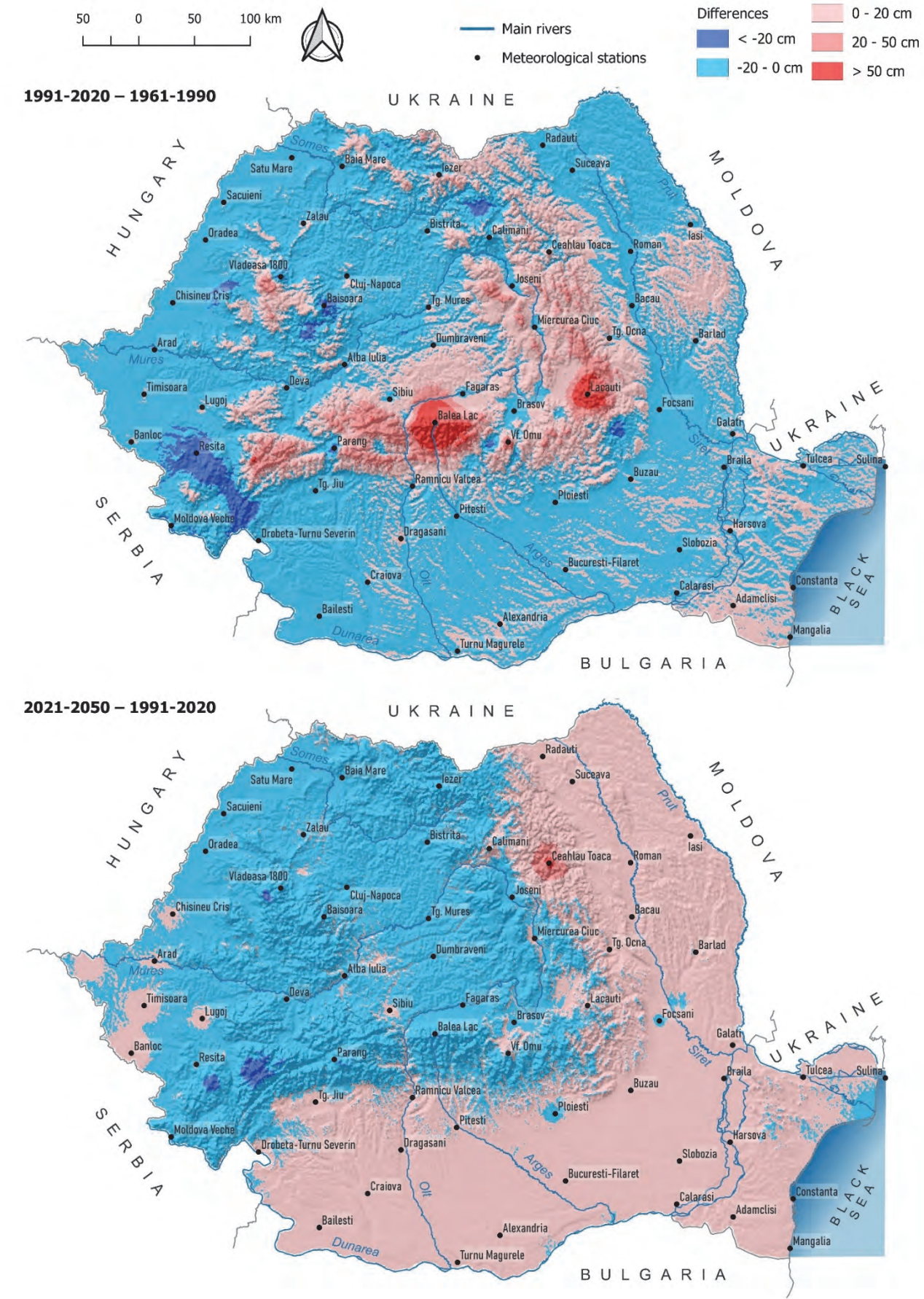
Area (sqkm)			
	1961 - 1990	1991 - 2020	2021-2050
> 450 cm	2	321	302
350 - 450 cm	110	301	288
250 - 350 cm	855	1711	1376
150 - 250 cm	8727	11314	11048
50 - 150 cm	54316	50165	50399
< 50 cm	170928	171126	171525



Combined elevation and annually cumulated snowdepth profile



Difference maps



EXPLANATION

The main cartographic source consists of maps for each climatic parameter for the periods 1961-1990, 1991-2020, and 2021-2050, tables showing the areas of legend classes, combined climate-parameter-altitude profiles, and maps of differences between periods.

The analysis follows three complementary levels: the spatial distribution of each parameter in 1961-1990, the observed change in 1991-2020 compared with 1961-1990, and the projected signal for 2021-2050 compared with 1991-2020. For each parameter, both the transfer of areas between legend classes and the logic of the vertical climate-parameter-altitude profile were examined. This dual criterion is important because Romania has a concentric and highly contrasting morphological structure: the Carpathians form the main orographic core, surrounded by hills, plateaus, and plains, while altitudinal differences strongly modify temperature, pressure, cloudiness, precipitation, and snow cover.

In order to compare parameters expressed in different units, a simple index of area redistribution between legend classes was calculated: half of the sum of the absolute area differences between two periods, divided by the total area. The indicator does not directly measure the physical intensity of change; rather, it shows how much the cartographic class structure changes. It is useful for identifying the parameters for which the maps undergo the strongest reorganization.

Table 1. Area redistribution index by legend class

Parameter	Observed redistribution (%)	Projected redistribution (%)	Total redistribution (%)
Multiannual mean relative humidity	34.9	62.8	71.6
Multiannual mean wind speed	14.8	41.9	30.6
Multiannual mean precipitation amount	4.1	25.9	21.8
Multiannual mean atmospheric pressure	0.5	11.2	11.6
Multiannual maximum temperature	14.9	7.8	16.8
Multiannual minimum temperature	24.9	7.2	30.4
Multiannual mean temperature	16.2	5.4	20.2
Multiannual mean cloudiness	10.6	5.3	15.1
Multiannual mean sunshine duration	27.8	4.7	31.2
Multiannual mean snow-cover depth (October-April)	1.8	0.3	1.7

Legend for Table 1. Observed redistribution = class structure change between 1961–1990 and 1991–2020. Projected redistribution = class structure change between 1991–2020 and 2021–2050. Total redistribution = class structure change between 1961–1990 and 2021–2050, calculated directly between the two extreme periods.

The formula used is: $R = 1/2 \times \sum |A_i(t_2) - A_i(t_1)| / A_{total} \times 100$, where A represents the area. Total redistribution is not the arithmetic sum of the observed and projected redistributions, as class transfers may partially offset each other between intervals.

In the observed change from 1961-1990 to 1991-2020, the largest redistributions occur for relative humidity, sunshine duration, minimum temperature, and mean/maximum temperature. This combination shows that the recent period is characterized not only by warming, but also by a radiative-hygric modification: more insolation, lower relative humidity, and higher minimum temperatures. Precipitation has a smaller observed redistribution at national scale, which does not exclude important regional differences, while snow cover shows a relatively small areal change, although it remains climatically important at medium altitudes.

In the 2021-2050 projection compared with 1991-2020, the order changes. Relative humidity becomes by far the parameter with the largest redistribution, followed by wind speed and precipitation. This triad indicates a possible drier regime, with less humid air, lower mean annual precipitation, and a wind field reorganized toward moderate speeds. Temperature continues to change, but the transition between classes is smaller than in 1991-2020 because much of the country is already within warm classes. Cloudiness and sunshine duration continue the tendency toward atmospheric clearing, but with more moderate class changes than those observed in the recent past.

EXPLICAȚII

Sursa cartografică principală constă în hărți pentru fiecare parametru climatic, pentru perioadele 1961-1990, 1991-2020 și 2021-2050, tabele care prezintă suprafețele claselor de legendă, profile combinate parametrul climatic-altitudine și hărți ale diferențelor dintre perioade.

Analiza urmărește trei niveluri complementare: distribuția spațială a fiecărui parametru în 1961-1990, schimbarea observată în 1991-2020 față de 1961-1990 și semnalul proiectat pentru 2021-2050 față de 1991-2020. Pentru fiecare parametru au fost examinate atât transferul suprafețelor între clasele de legendă, cât și logica profilului vertical parametrul climatic-altitudine. Acest criteriu dublu este important deoarece România are o structură morfologică concentrică și foarte contrastantă: Carpații formează nucleul orografic principal, înconjurat de dealuri, podișuri și câmpii, iar diferențele altitudinale modifică puternic temperatura, presiunea, nebulozitatea, precipitațiile și stratul de zăpadă.

Pentru a compara parametri exprimați în unități diferite, a fost calculat un indice simplu de redistribuire a suprafețelor între clasele de legendă: jumătate din suma diferențelor absolute ale suprafețelor claselor dintre două perioade, împărțită la suprafața totală. Indicatorul nu măsoară direct intensitatea fizică a schimbării; el arată mai degrabă cât de mult se modifică structura cartografică pe clase. Este util pentru identificarea parametrilor pentru care hărțile suferă cea mai puternică reorganizare.

Tabelul 1. Indicele de redistribuire a suprafețelor pe clase de legendă

Parametru	Redistribuire observată (%)	Redistribuire proiectată (%)	Redistribuire totală (%)
Umiditate relativă medie multianuală	34.9	62.8	71.6
Viteza medie multianuală a vântului	14.8	41.9	30.6
Cantitatea medie multianuală de precipitații	4.1	25.9	21.8
Presiunea atmosferică medie multianuală	0.5	11.2	11.6
Temperatura maximă multianuală	14.9	7.8	16.8
Temperatura minimă multianuală	24.9	7.2	30.4
Temperatura medie multianuală	16.2	5.4	20.2
Nebulozitatea medie multianuală	10.6	5.3	15.1
Durata medie multianuală de strălucire a Soarelui	27.8	4.7	31.2
Grosimea medie multianuală a stratului de zăpadă (oct-apr)	1.8	0.3	1.7

Legendă pentru Tabelul 1. Redistribuire observată = schimbarea structurii pe clase între 1961-1990 și 1991-2020. Redistribuire proiectată = schimbarea structurii pe clase între 1991-2020 și 2021-2050. Redistribuire totală = schimbarea structurii pe clase între 1961-1990 și 2021-2050, calculată direct între cele două perioade extreme.

Formula folosită este: $R = 1/2 \times \sum |A_i(t_2) - A_i(t_1)| / A_{total} \times 100$, unde A reprezintă aria. Redistribuirea totală nu este suma aritmetică a redistribuirii observate și a celei proiectate, deoarece transferurile dintre clase se pot compensa parțial între intervale.

În schimbarea observată de la 1961-1990 la 1991-2020, cele mai mari redistribuiri apar la umiditatea relativă, durata de strălucire a Soarelui, temperatura minimă și temperatura medie/maximă. Această combinație arată că perioada recentă este caracterizată nu numai prin încălzire, ci și printr-o modificare radiativ-higrică: mai multă insolație, umiditate relativă mai scăzută și temperaturi minime mai ridicate. Precipitațiile au o redistribuire observată mai mică la scară națională, ceea ce nu exclude diferențe regionale importante, iar stratul de zăpadă arată o schimbare areală relativ redusă, deși rămâne important climatic la altitudini medii.

În proiecția 2021-2050 comparată cu 1991-2020, ordinea se modifică. Umiditatea relativă devine de departe parametrul cu cea mai mare redistribuire, urmată de viteza vântului și de precipitații. Această triadă indică un posibil regim mai uscat, cu aer mai puțin umed, precipitații medii anuale mai reduse și un câmp al vântului reorganizat spre viteze moderate. Temperatura continuă să se modifice, dar tranziția între clase este mai mică decât în 1991-2020, deoarece o mare parte a țării se află deja în clase calde. Nebulozitatea și durata de strălucire a Soarelui continuă tendința către o atmosferă mai senină, dar cu schimbări de clasă mai moderate decât cele observate în trecutul recent.

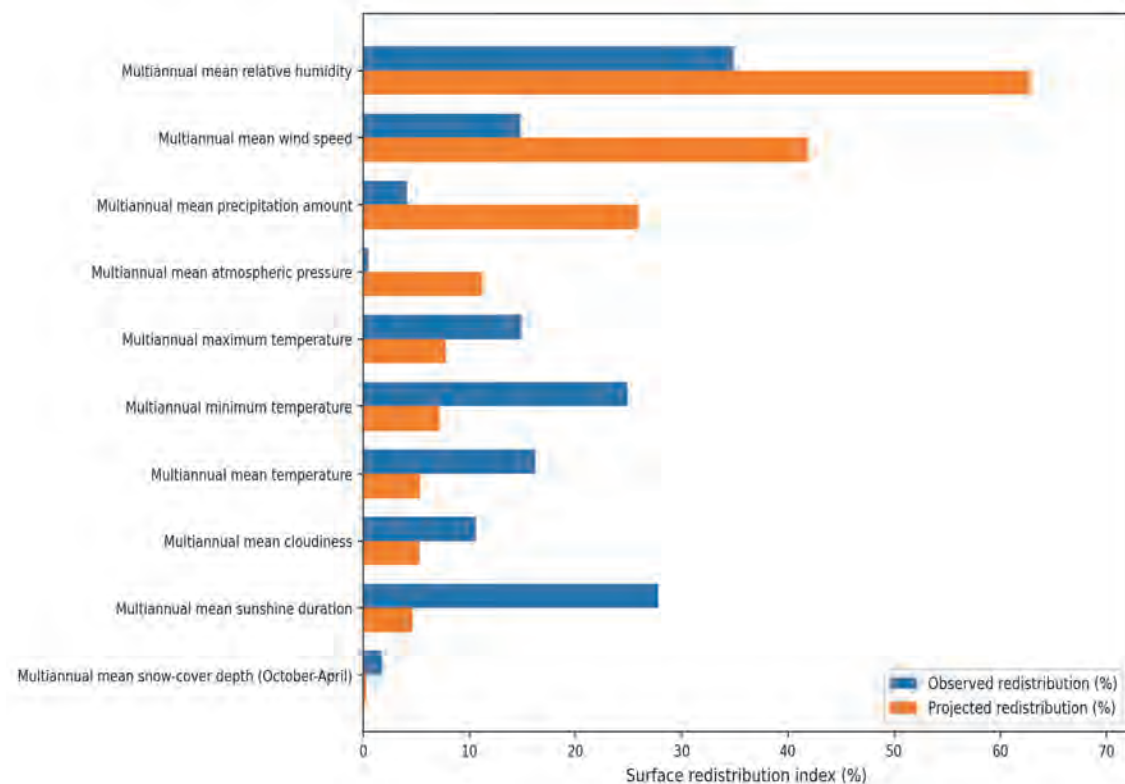


Figure 1. Observed and projected redistribution of areas by legend class.

Spatially, the largest changes with potentially high impact are concentrated in low and intermediate units: the Romanian Plain, the Western Plain, the Moldavian Plateau, the Dobrogea Plateau, the Danube Delta, and the Getic Plateau. These units have low or medium elevations, high temperatures, long sunshine duration, declining relative humidity, and a projected reduction in precipitation. In these areas, the risk of climatic aridization may intensify, especially when temperature increase is combined with the decrease in relative humidity and the expansion of the <400 mm precipitation class.

In mountainous units, the changes are expressed differently. The Southern Carpathians, Eastern Carpathians, and Apuseni Mountains remain the coldest, cloudiest, most humid areas, richest in precipitation and snow cover, but the thresholds shift altitudinally. Cold thermal classes contract, very high precipitation classes decrease sharply in the projection, and thick snow-cover classes decline slightly after 1991-2020. Thus, the mountains do not become similar to the plains, but they lose part of the climatic contrast that differentiates them.

The Subcarpathians, the Western Hills, the Transylvanian Plateau, and the Getic Plateau are transition zones and, for this reason, are sensitive to threshold migration. A temperature increase or a precipitation decrease can shift these units from a relatively favorable climatic regime toward a more pronounced water-stress regime. In terms of snow, the critical zone is not necessarily the highest summit, but the medium altitudinal belt, where slight warming changes the snow/rain ratio and the duration of snow-cover persistence.

In conclusion, the largest projected changes cannot be reduced to air temperature alone. The dominant signal is a combination of warming, greater sunshine, much lower relative humidity, and reduced mean annual precipitation. The smallest areal changes occur for snow cover and, in the observed period, for atmospheric pressure; however, these parameters are strongly linked to altitude and may have important local effects. The atlas therefore shows a Romania that is climatically warmer, sunnier, and potentially drier in the lowlands, while the mountain domain remains distinct but with climatic belts shifted toward higher altitudes.

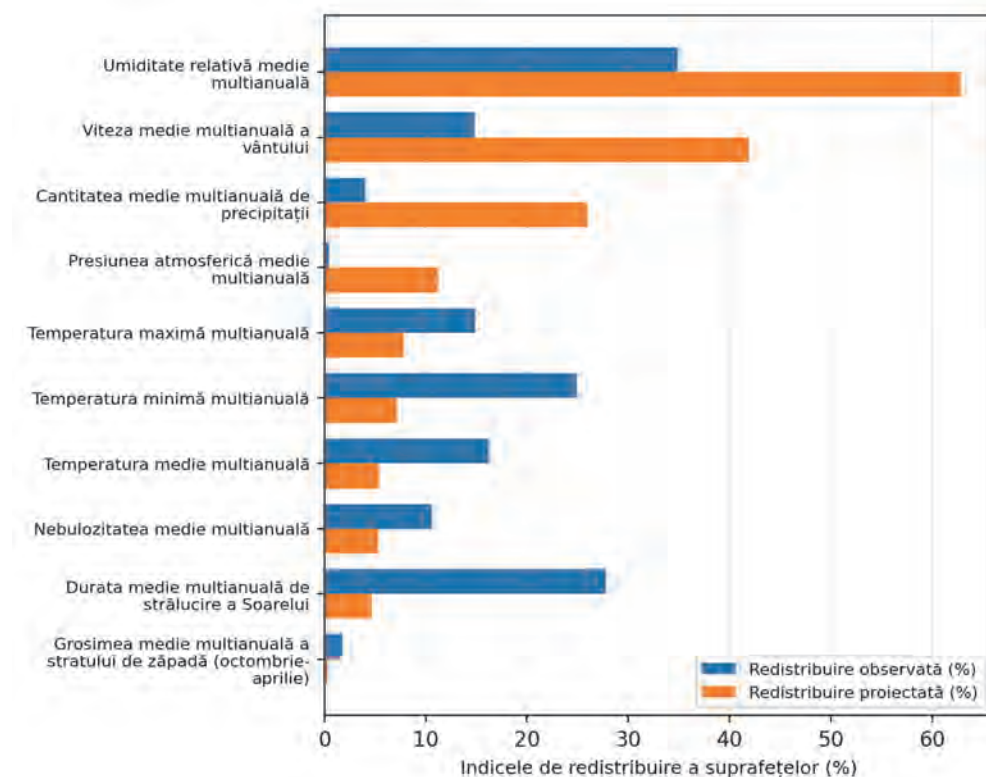


Figura 1. Redistribuirea observată și proiectată a suprafețelor pe clase de legendă

Spațial, cele mai mari schimbări cu impact potențial ridicat se concentrează în unitățile joase și intermediare: Câmpia Română, Câmpia de Vest, Podișul Moldovei, Podișul Dobrogei, Delta Dunării și Podișul Getic. Aceste unități au altitudini joase sau medii, temperaturi ridicate, durată mare de strălucire a Soarelui, umiditate relativă în scădere și o reducere proiectată a precipitațiilor. În aceste regiuni, riscul de aridizare climatică se poate intensifica, mai ales atunci când creșterea temperaturii se combină cu scăderea umidității relative și cu extinderea clasei de precipitații <400 mm.

În unitățile montane, schimbările se exprimă diferit. Carpații Meridionali, Carpații Orientali și Munții Apuseni rămân cele mai reci, mai noroase, mai umede arii, cele mai bogate în precipitații și strat de zăpadă, dar pragurile se deplasează altitudinal. Clasele termice reci se contractă, clasele cu precipitații foarte ridicate scad accentuat în proiecție, iar clasele cu strat gros de zăpadă se reduc ușor după 1991-2020. Astfel, munții nu devin asemănători câmpiilor, dar pierd o parte din contrastul climatic care îi diferențiază.

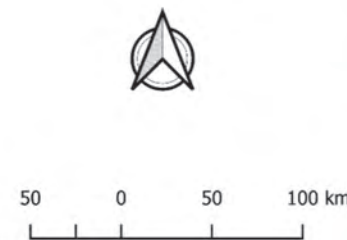
Subcarpații, Dealurile de Vest, Podișul Transilvaniei și Podișul Getic sunt zone de tranziție și, din acest motiv, sunt sensibile la migrarea pragurilor. O creștere a temperaturii sau o scădere a precipitațiilor poate deplasa aceste unități de la un regim climatic relativ favorabil către un regim de stres hidric mai pronunțat. În ceea ce privește zăpada, zona critică nu este neapărat vârful cel mai înalt, ci etajul altitudinal mediu, unde o ușoară încălzire modifică raportul ninsoare/ploaie și durata persistenței stratului de zăpadă.

În concluzie, cele mai mari schimbări proiectate nu pot fi reduse doar la temperatura aerului. Semnalul dominant este o combinație între încălzire, insolație mai mare, umiditate relativă mult mai scăzută și reducerea precipitațiilor medii anuale. Cele mai mici schimbări areale apar la stratul de zăpadă și, în perioada observată, la presiunea atmosferică; totuși, acești parametri sunt puternic legați de altitudine și pot avea efecte locale importante. Atlasul arată, așadar, o Românie climatic mai caldă, mai însoțită și potențial mai uscată în zonele joase, în timp ce domeniul montan rămâne distinct, dar cu etaje climatice deplasate către altitudini mai mari.

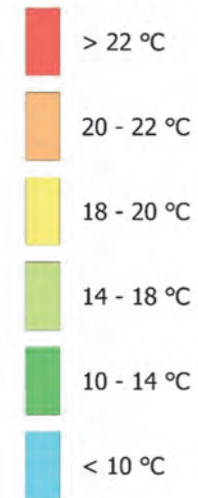
MAPS AND PROFILES OF MULTIANNUAL MEAN PARAMETERS FOR THE MAXIMA AND MINIMA MONTHS

1961 - 1990

Multiannual Mean Temperature JULY



Temperature



— Main rivers

• Meteorological stations

Area (sqkm)

	1961 - 1990	1991 - 2020	2021-2050
> 22 °C	26949	85454	94260
20 - 22 °C	68914	63700	67321
18 - 20 °C	62660	39531	39781
14 - 18 °C	53818	35745	31017
10 - 14 °C	19948	9634	2470
< 10 °C	2649	874	89

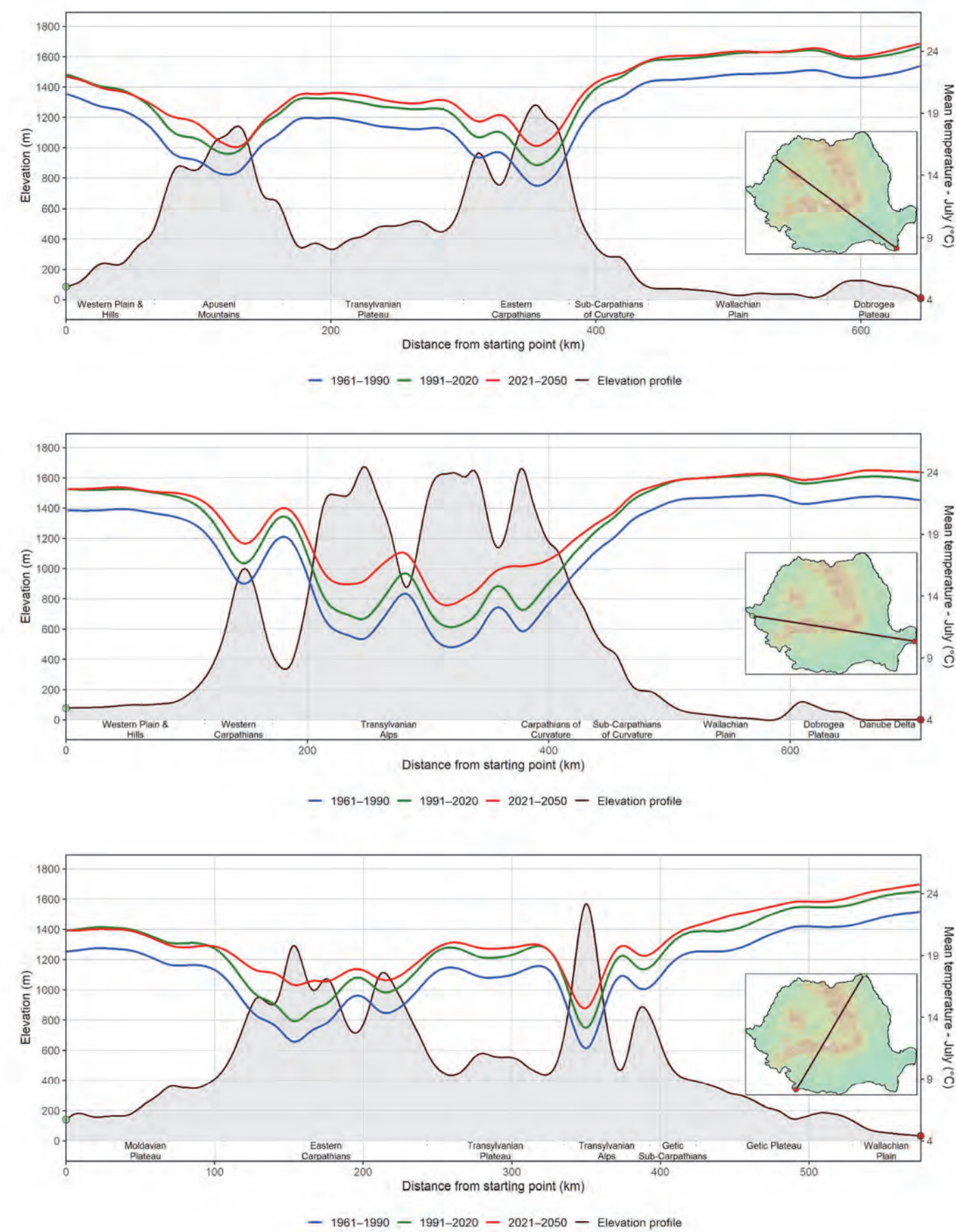
1991 - 2020



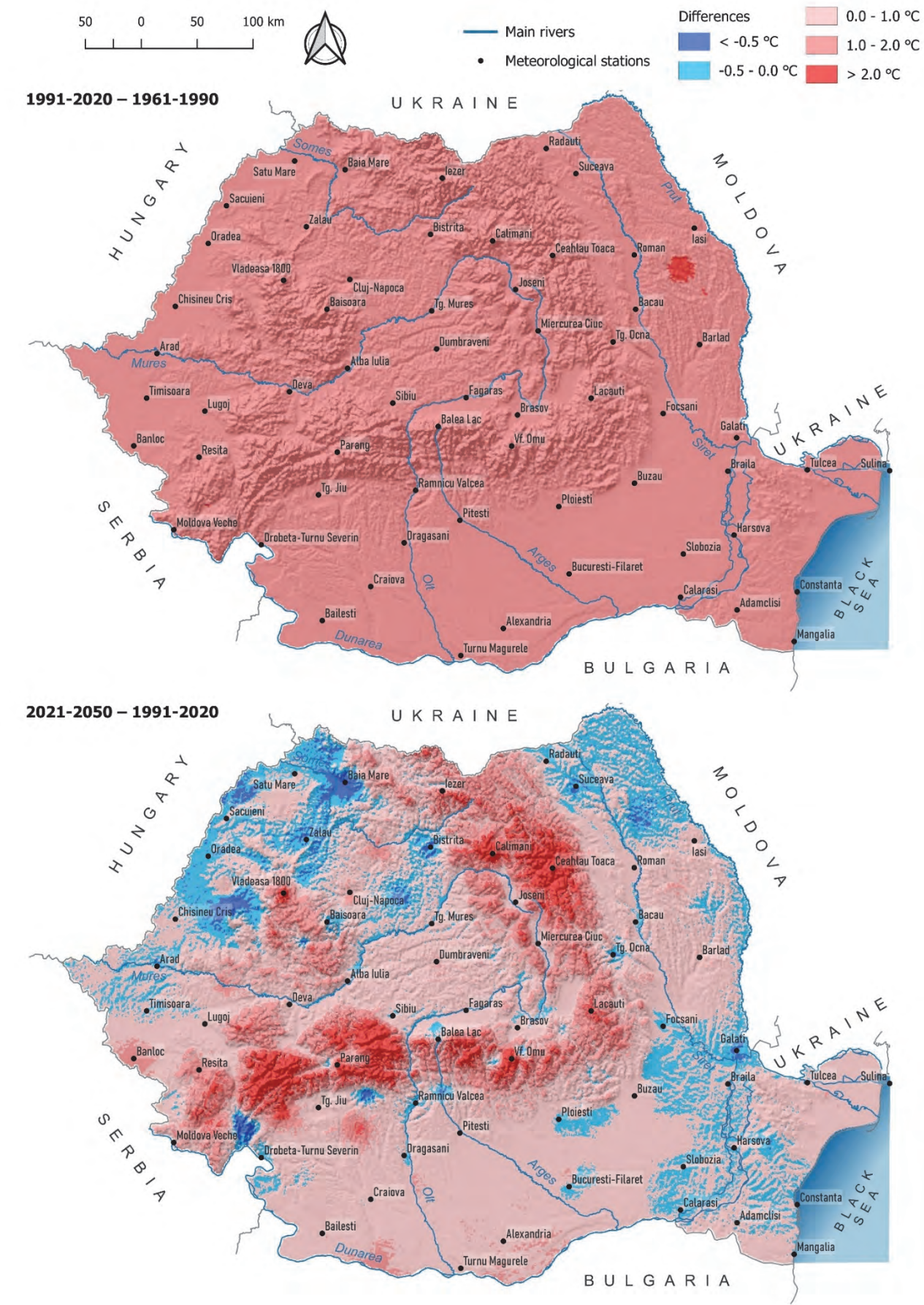
2021 - 2050

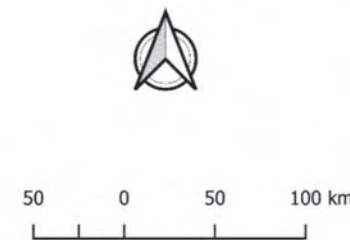
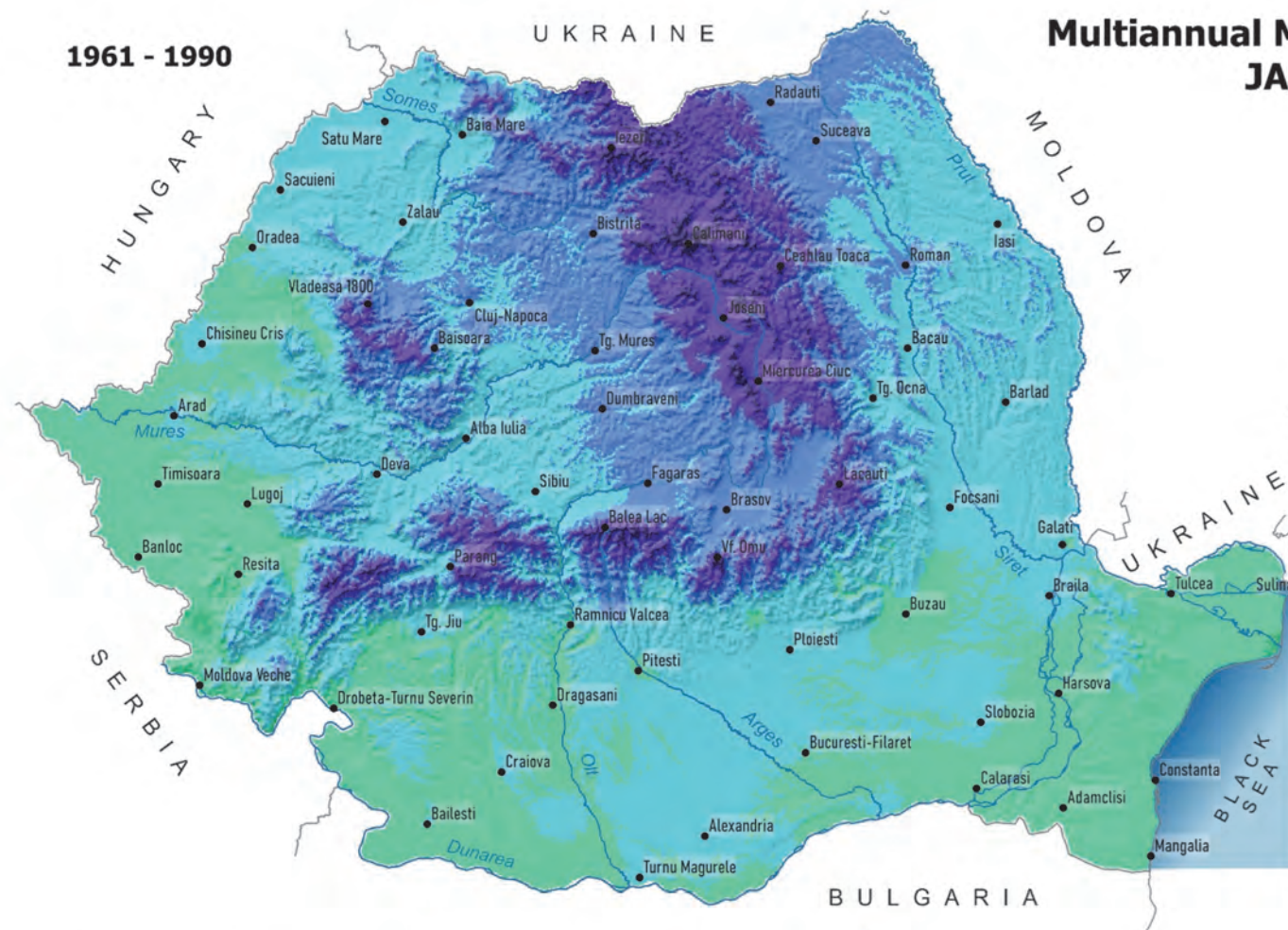


Combined elevation and mean temperature profile - July

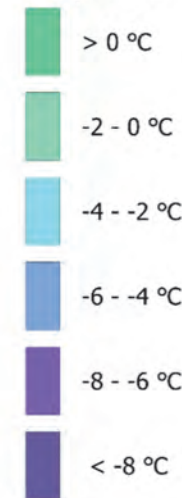


Difference maps





Temperature



— Main rivers

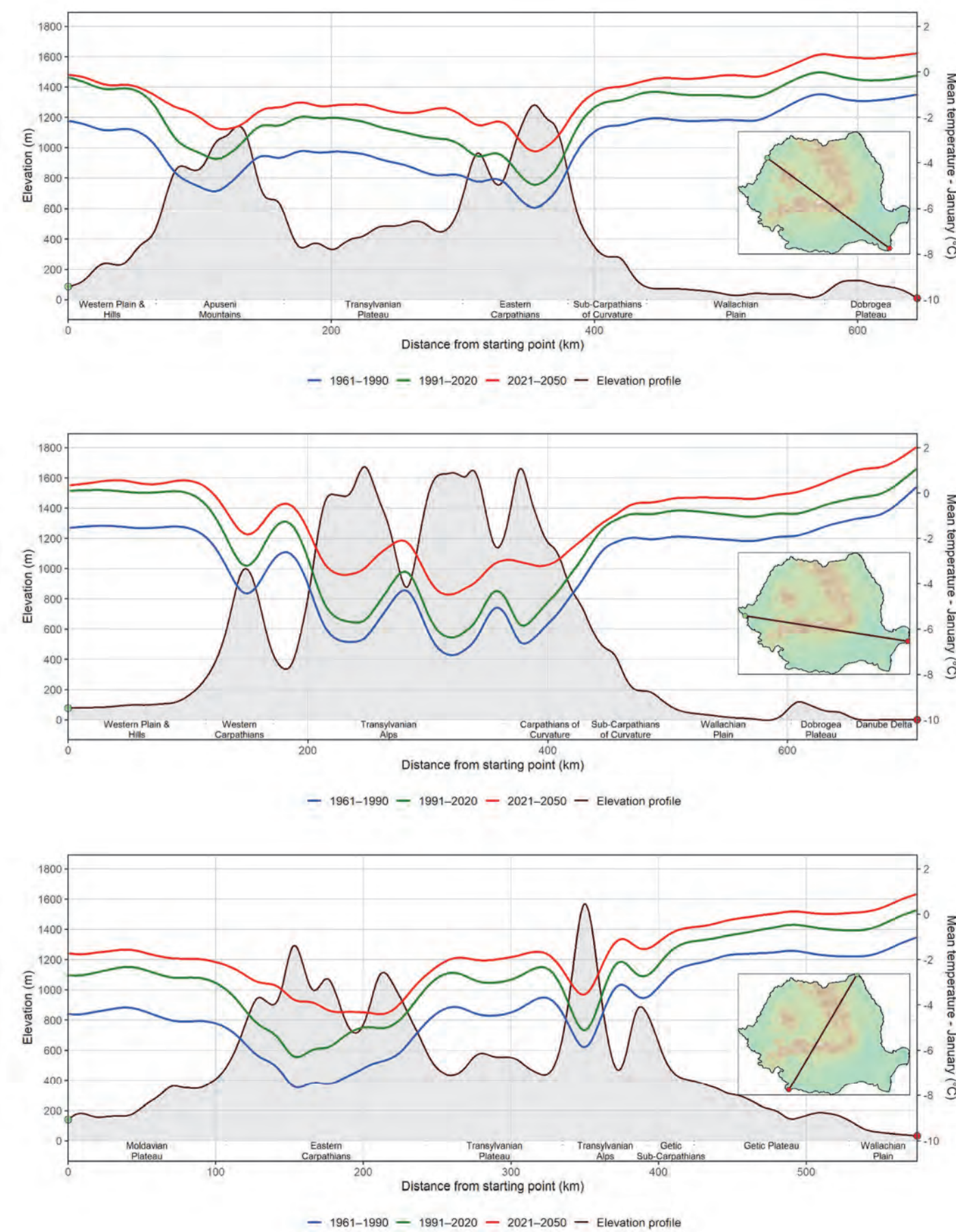
• Meteorological stations

Area (sqkm)

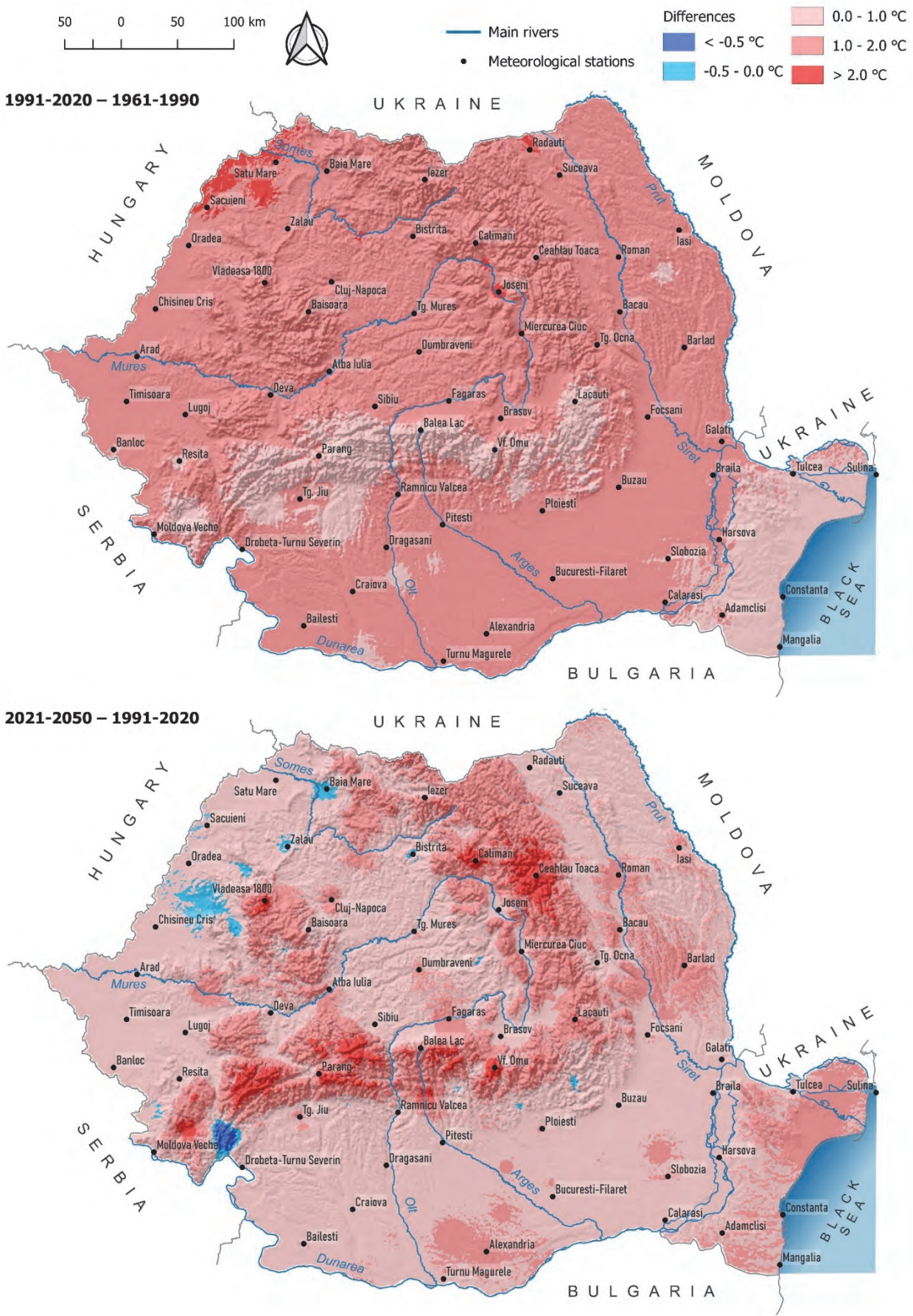
	1961 - 1990	1991 - 2020	2021-2050
> 0 °C	256	10385	48966
-2 - 0 °C	61415	126015	133094
-4 - -2 °C	102226	67024	41004
-6 - -4 °C	49239	24096	11559
-8 - -6 °C	18597	6962	315
< -8 °C	3205	456	0



Combined elevation and mean temperature profile - January



Difference maps

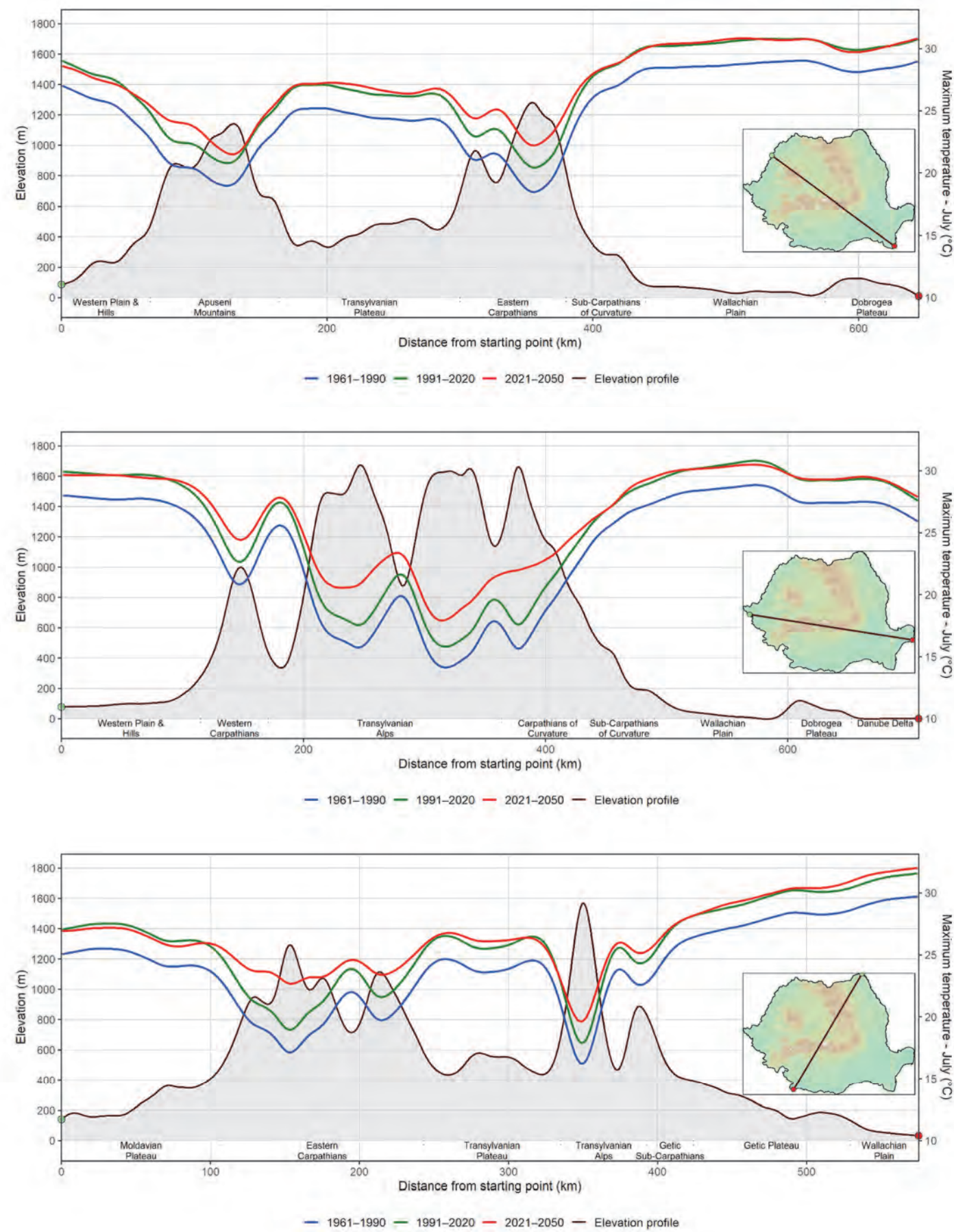




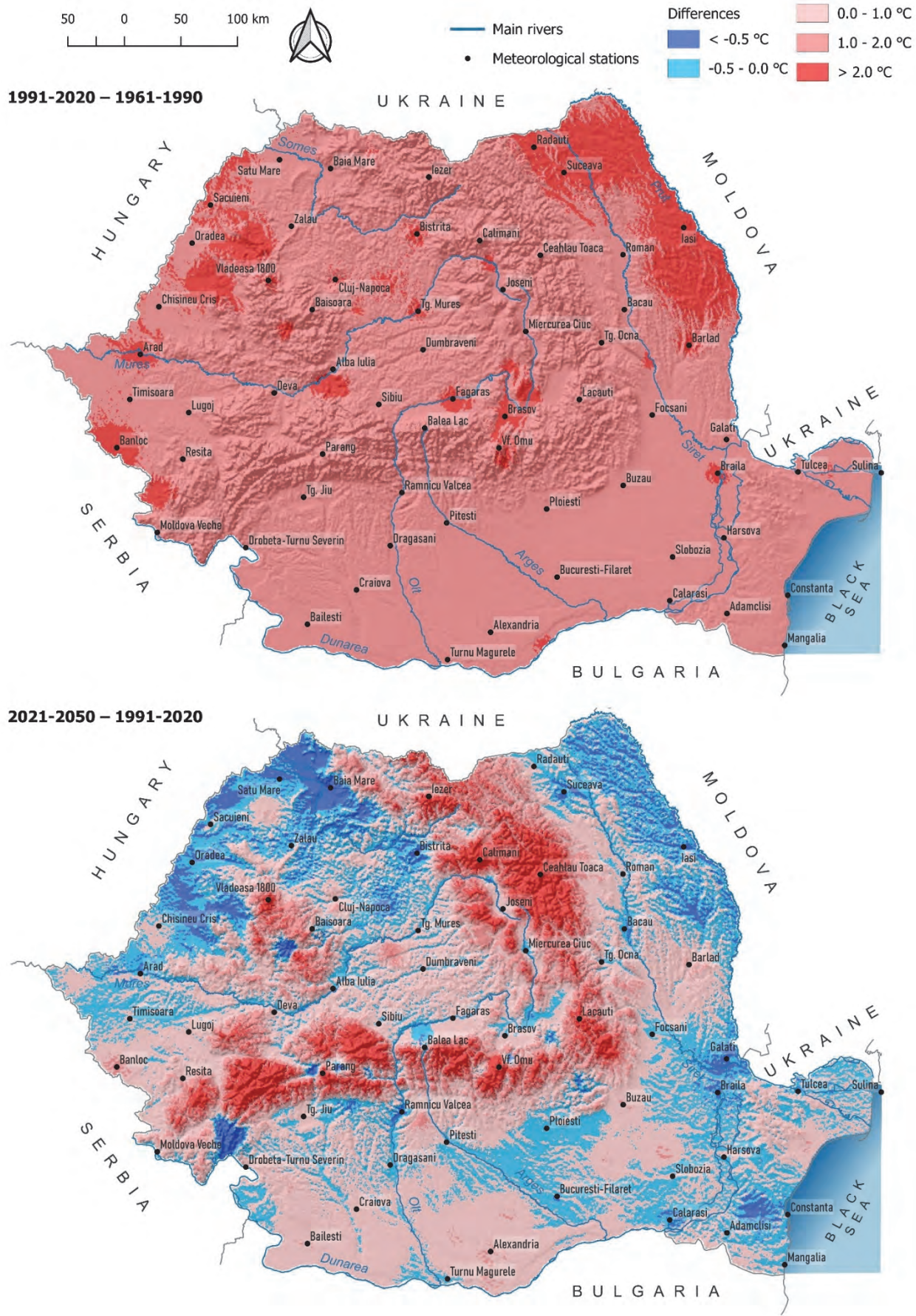
Area (sqkm)		
1961 - 1990	1991 - 2020	2021-2050
7	47422	48822
53166	63368	61523
113051	80342	91664
42698	29867	28482
20961	11837	4163
5055	2102	284



Combined elevation and maximum temperature profile - July

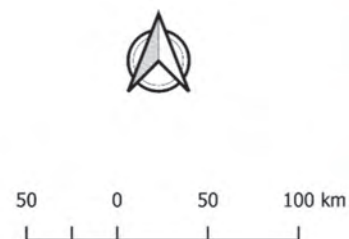


Difference maps

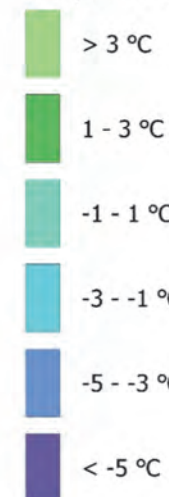




Multiannual Maximum Temperature JANUARY



Temperatrure



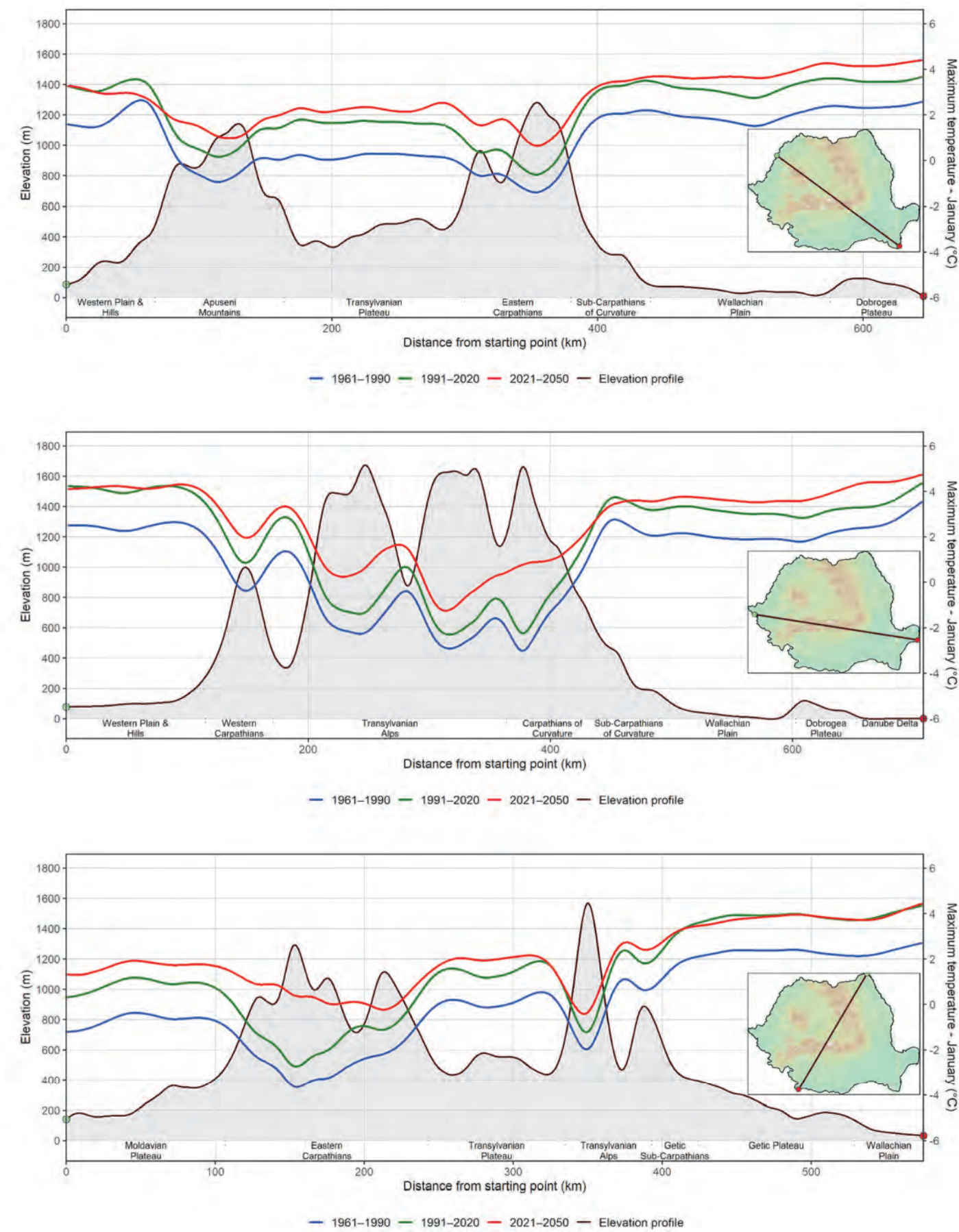
- Main rivers
- Meteorological stations

Area (sqkm)

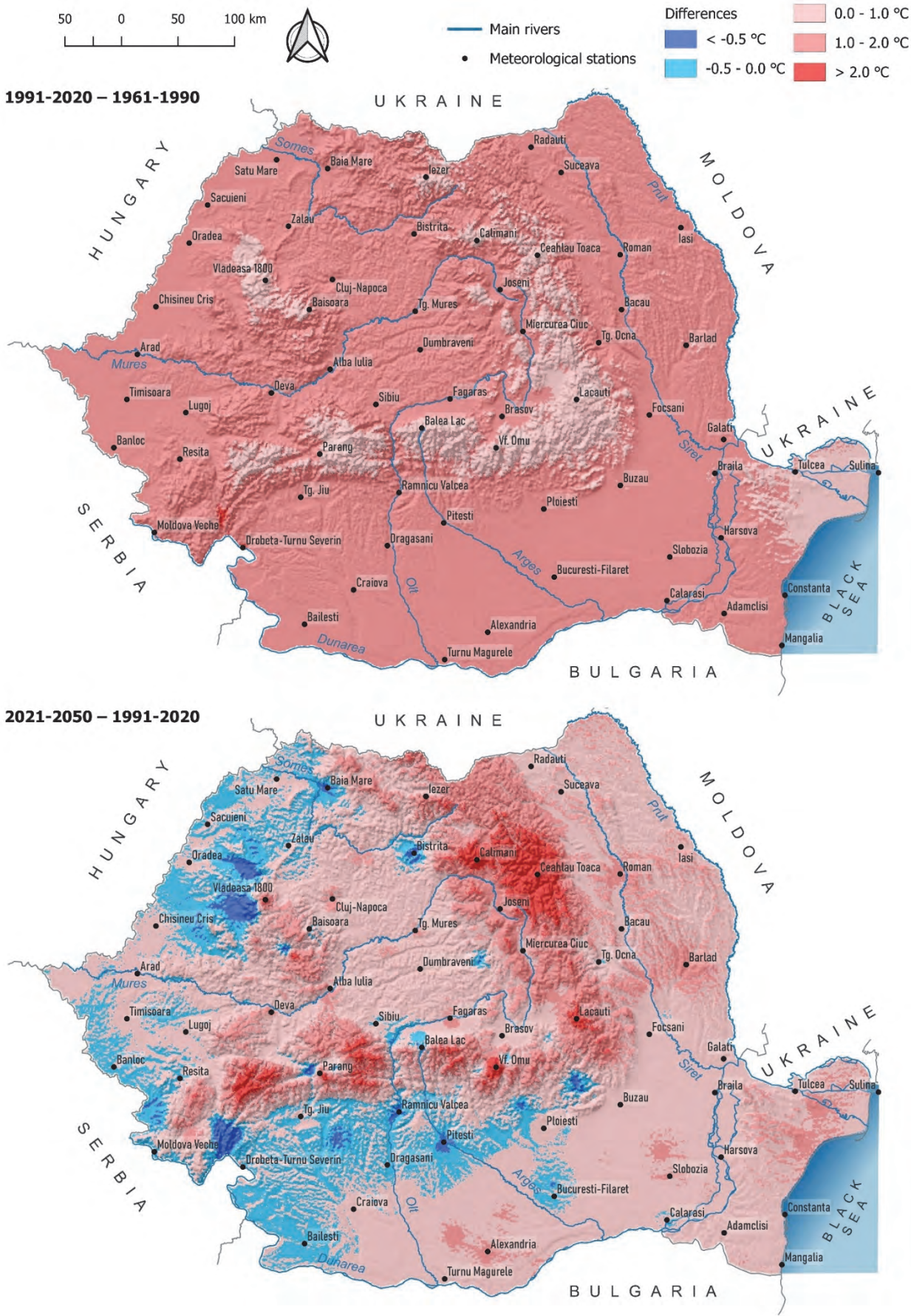
	1961 - 1990	1991 - 2020	2021-2050
> 3 °C	2354	94578	112003
1 - 3 °C	118700	85225	92586
-1 - 1 °C	79967	35842	27299
-3 - -1 °C	25354	16433	2875
-5 - -3 °C	8075	2661	165
< -5 °C	488	199	10



Combined elevation and maximum temperature profile - January



Difference maps



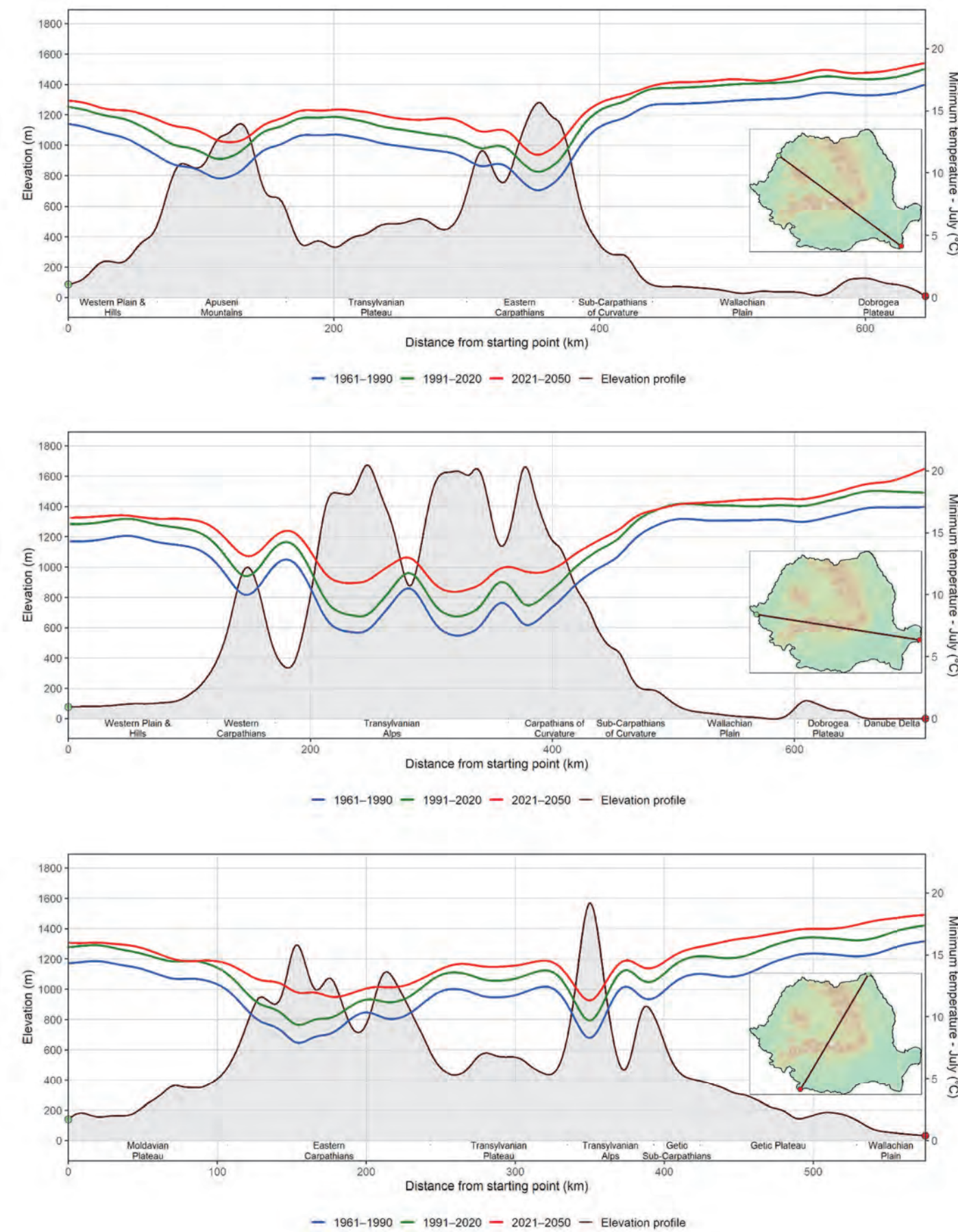


Area (sqkm)

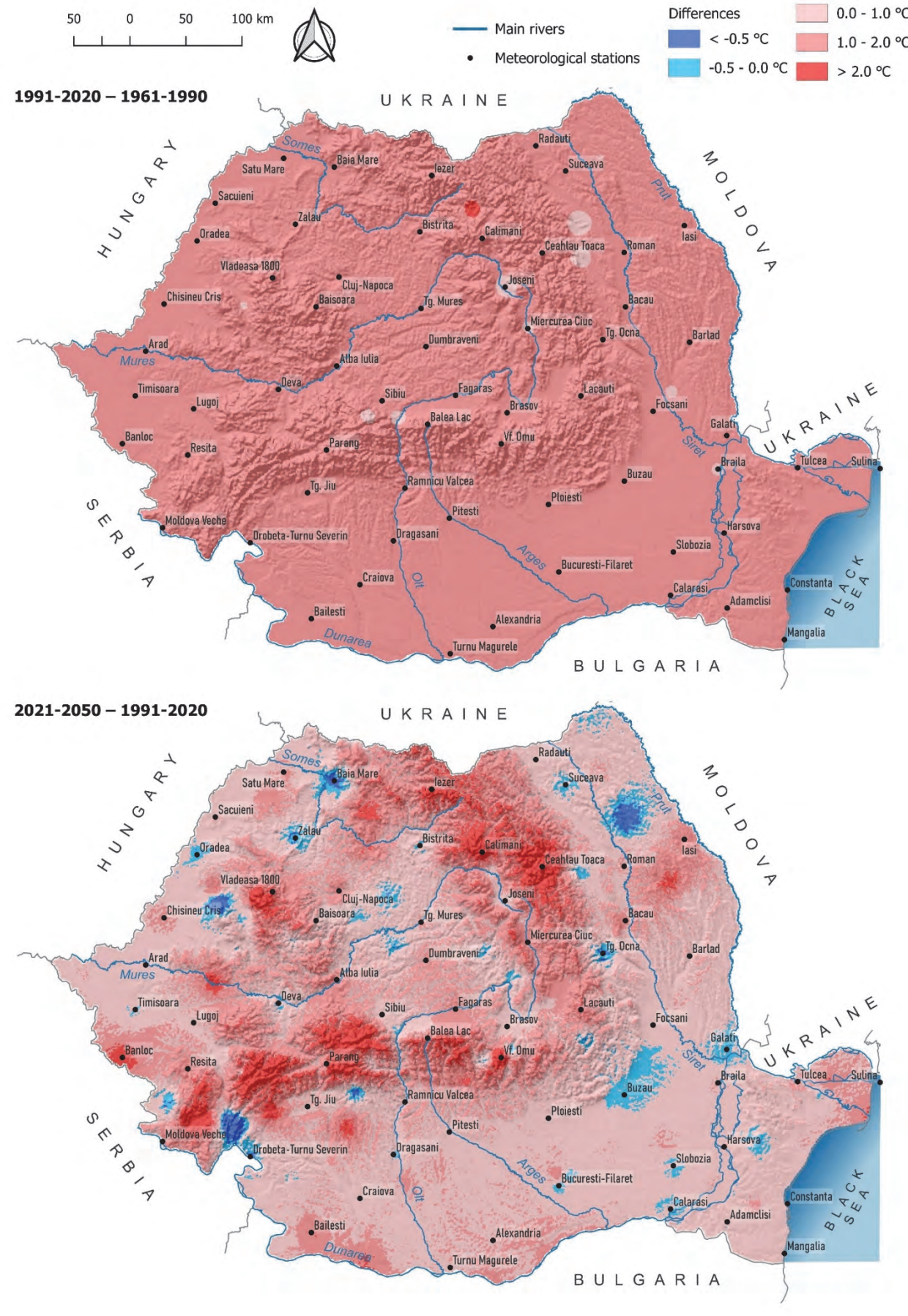
1961 - 1990	1991 - 2020	2021-2050
0	4189	14803
22552	68325	83355
72787	78784	81060
72597	45146	36975
56567	35441	18637
10435	3053	108

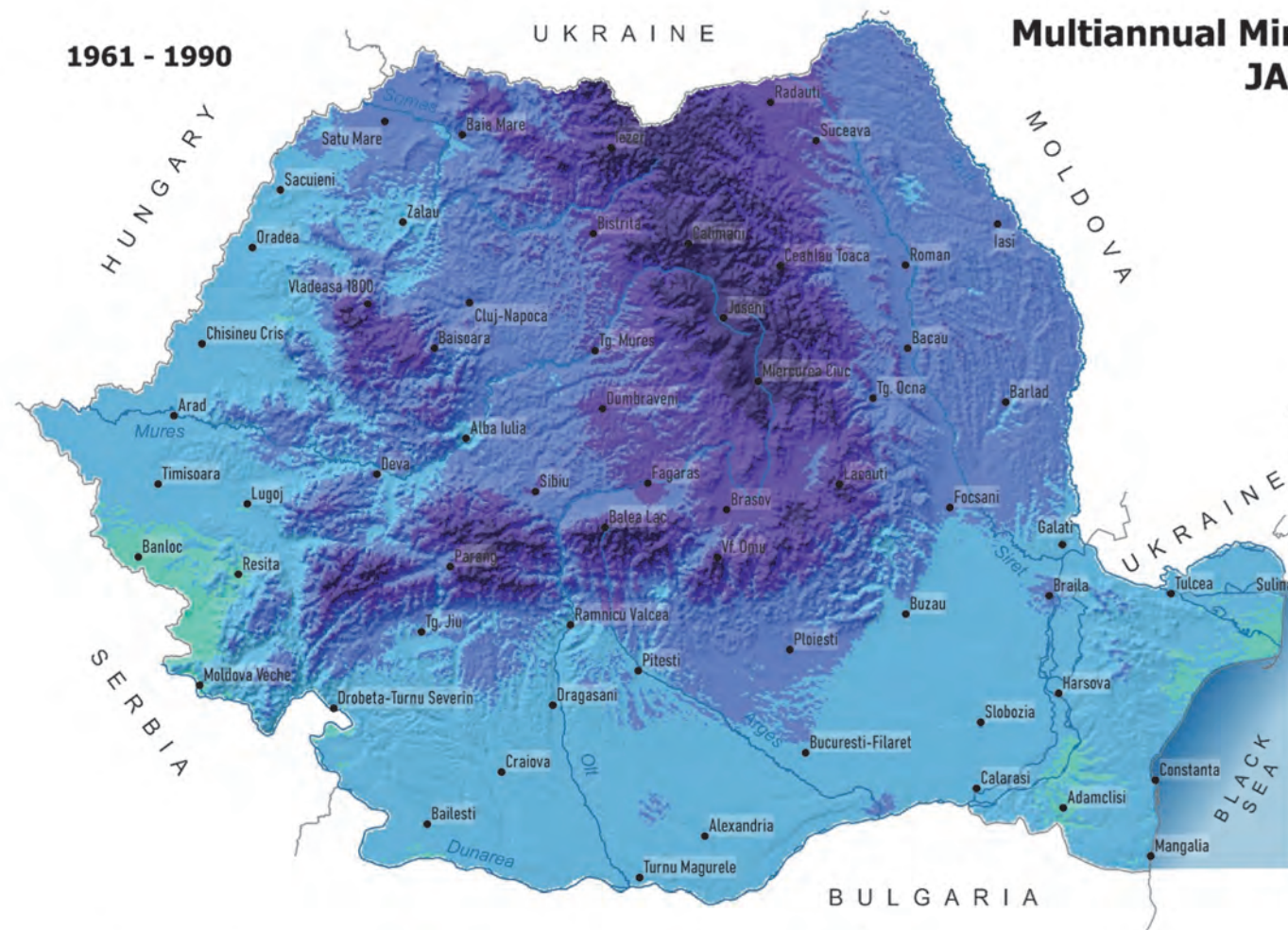


Combined elevation and minimum temperature profile - July

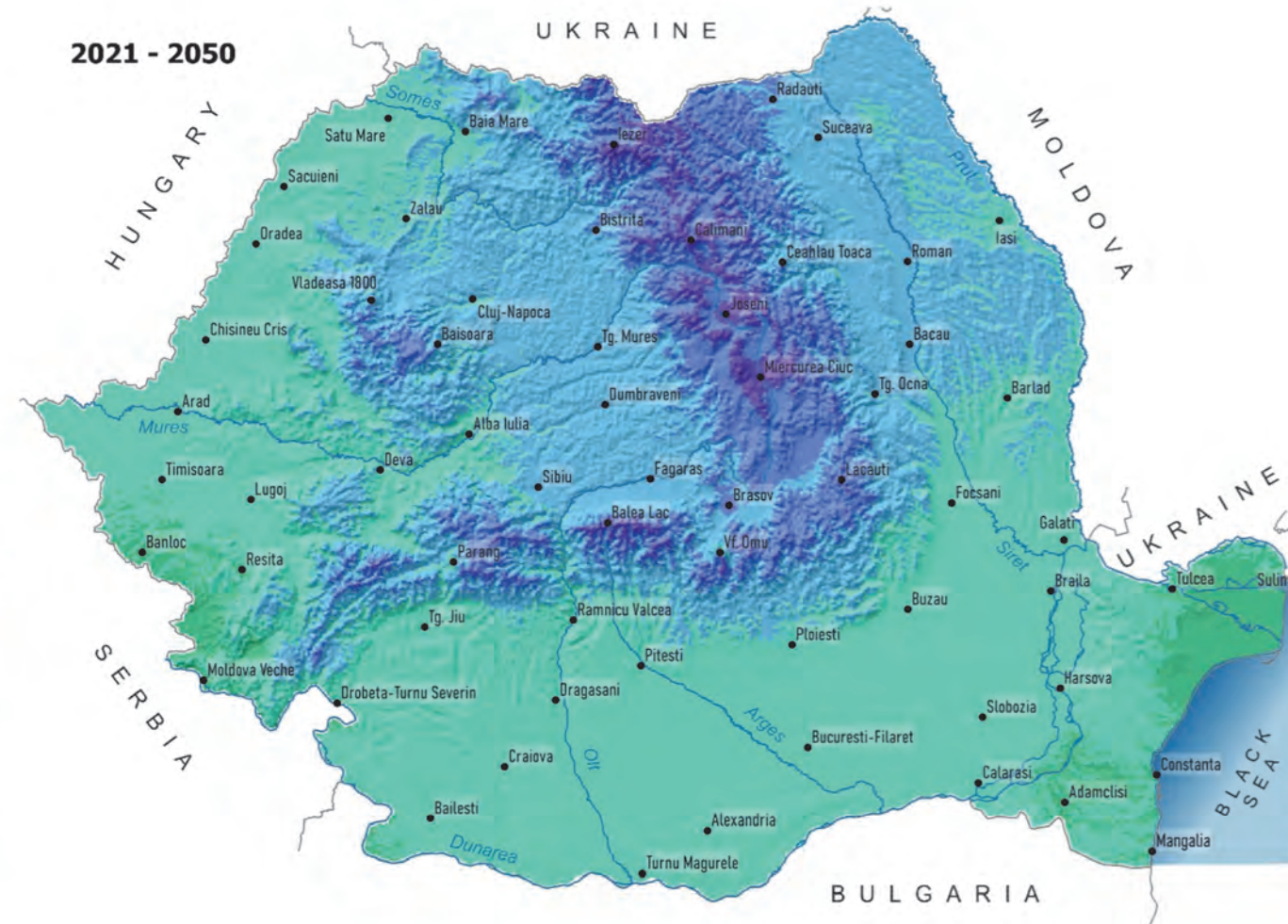


Difference maps

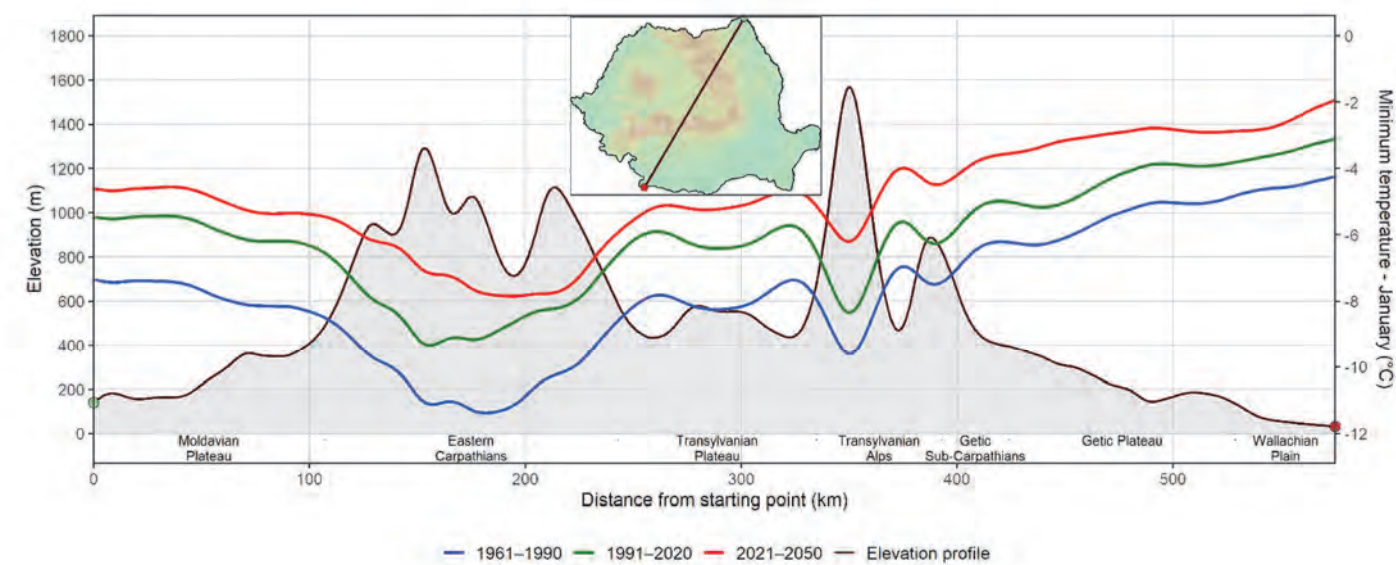
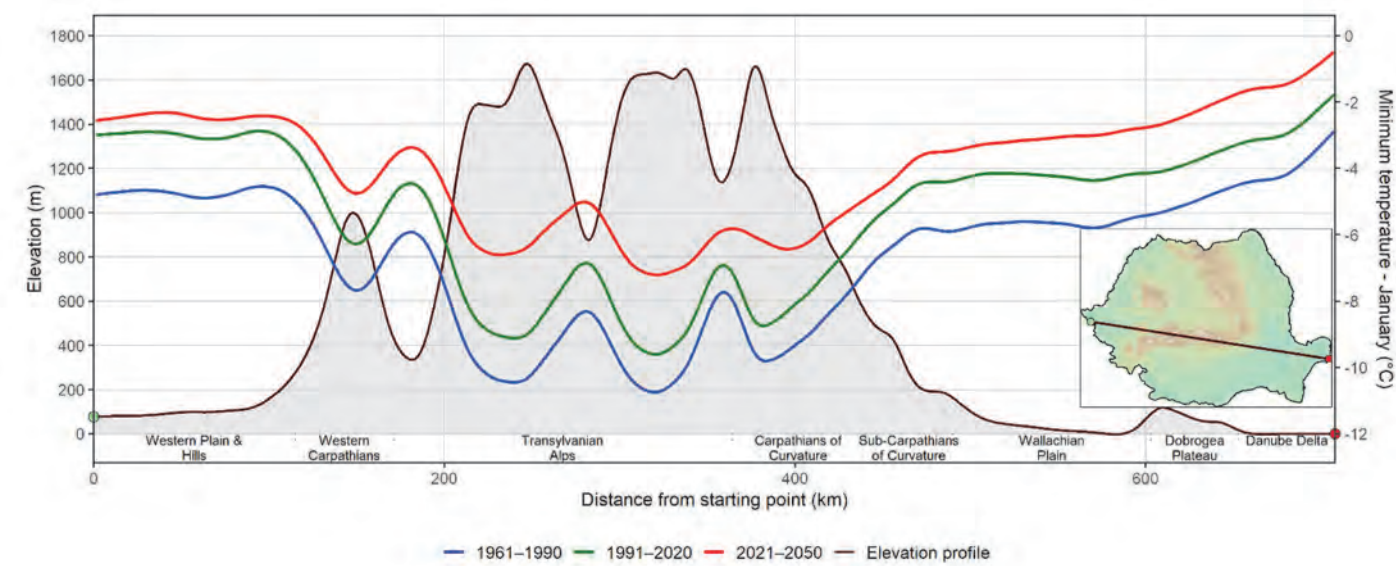
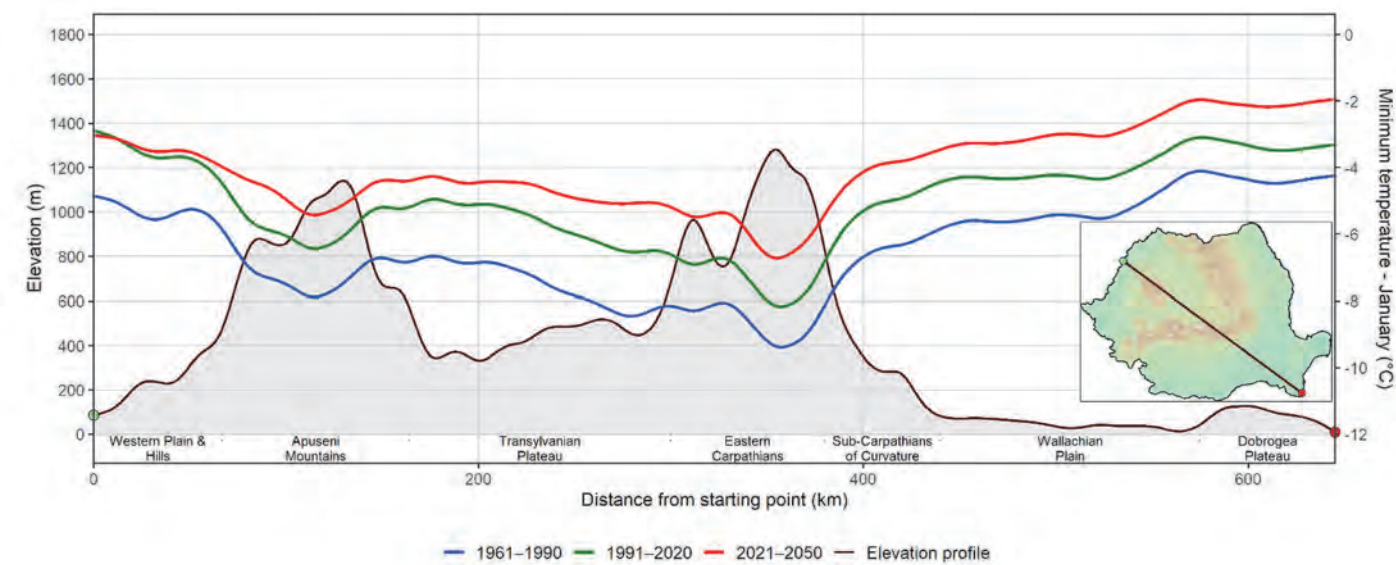




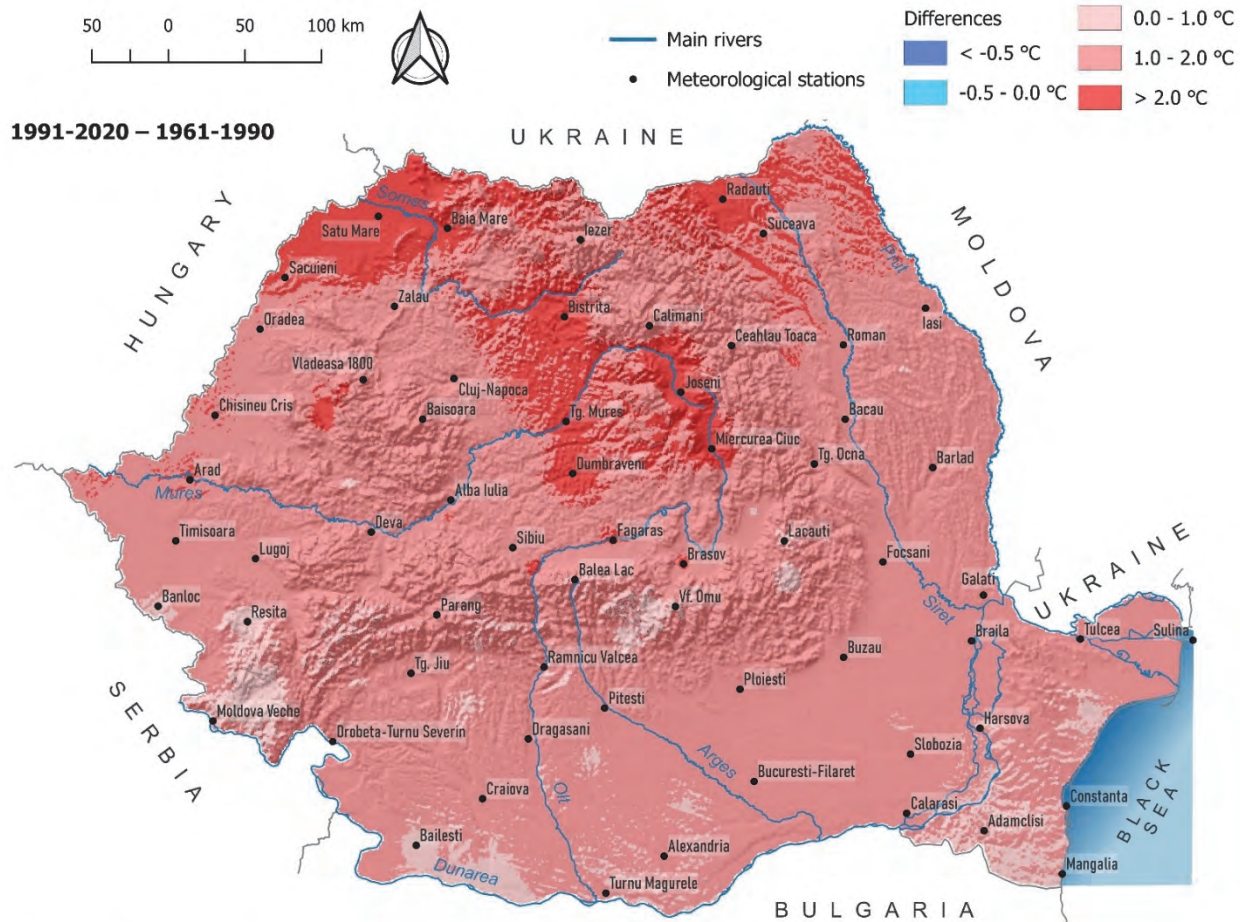
Area (sqkm)		
1961 - 1990	1991 - 2020	2021-2050
0	486	9282
4814	52993	120562
96073	122471	75426
83572	37831	25369
33663	18165	4245
16816	2992	54

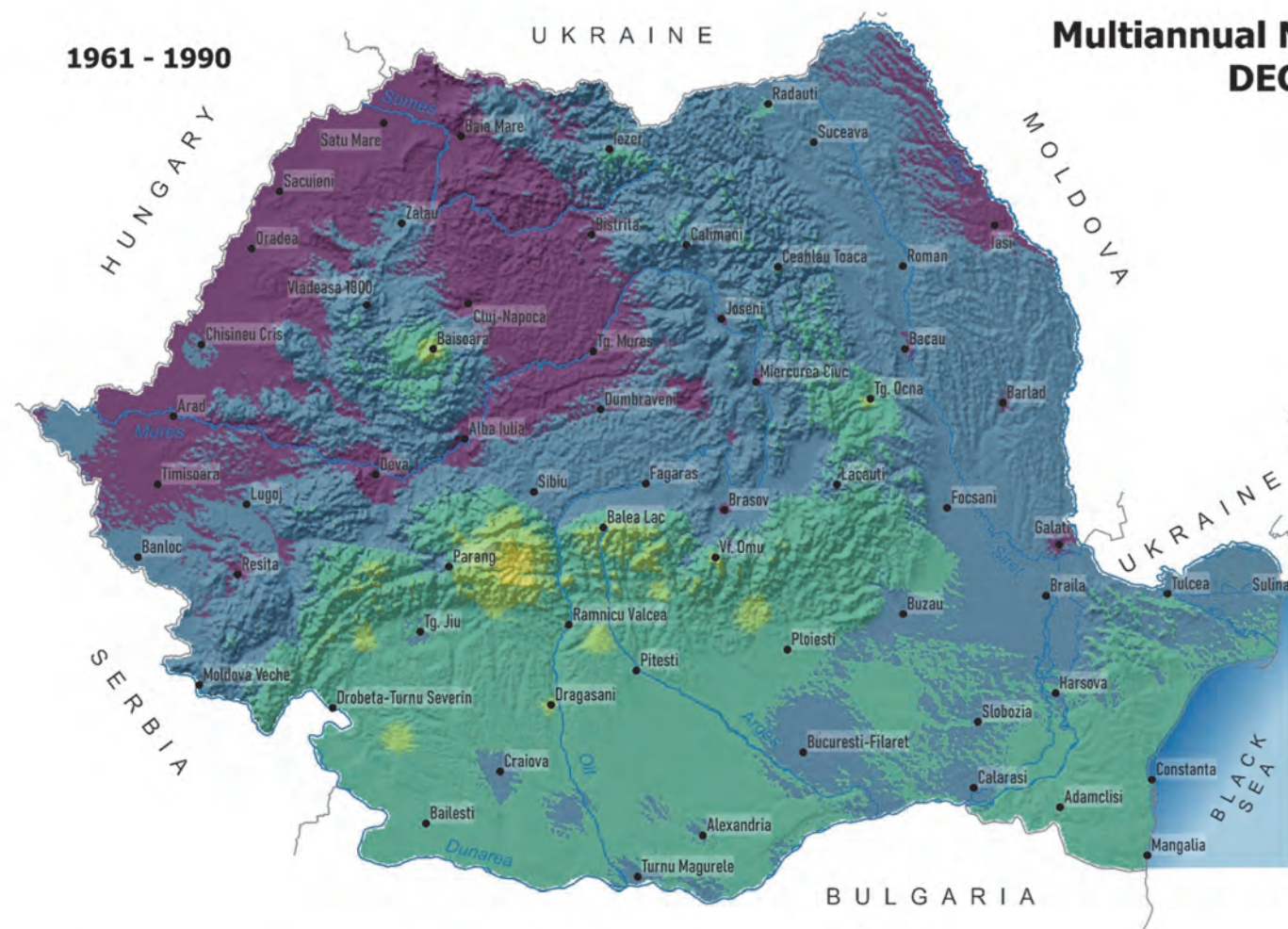


Combined elevation and minimum temperature profile - January

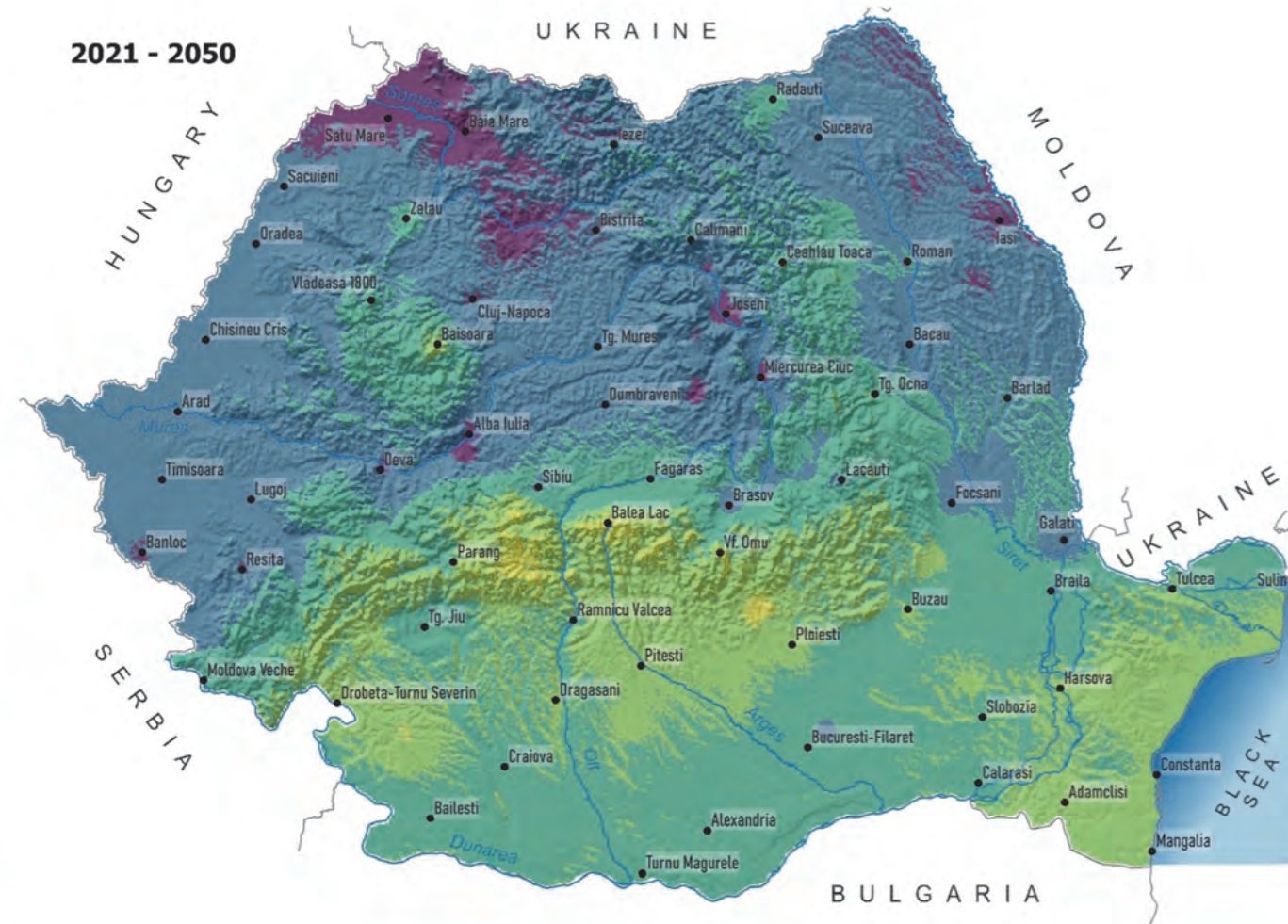


Difference maps

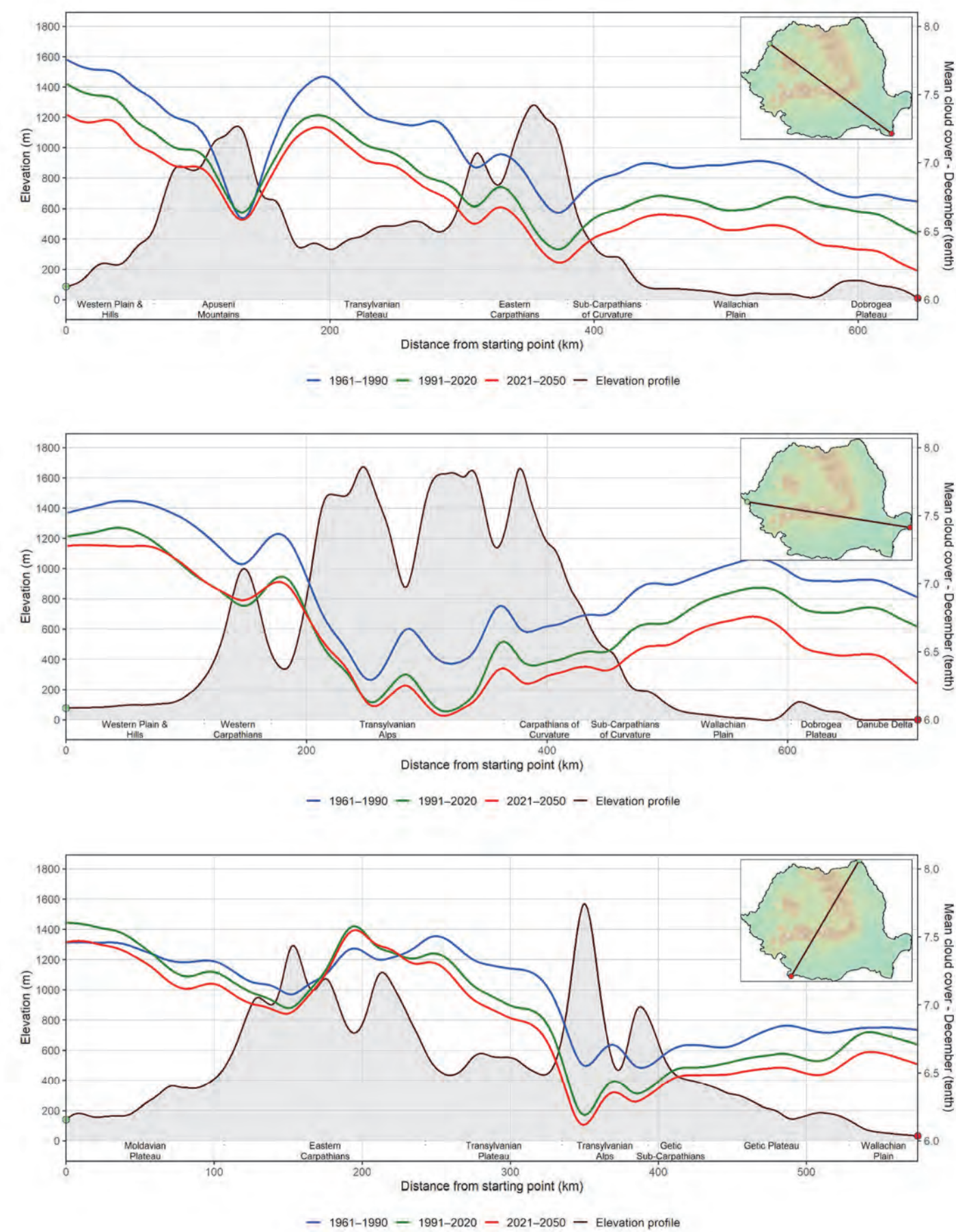




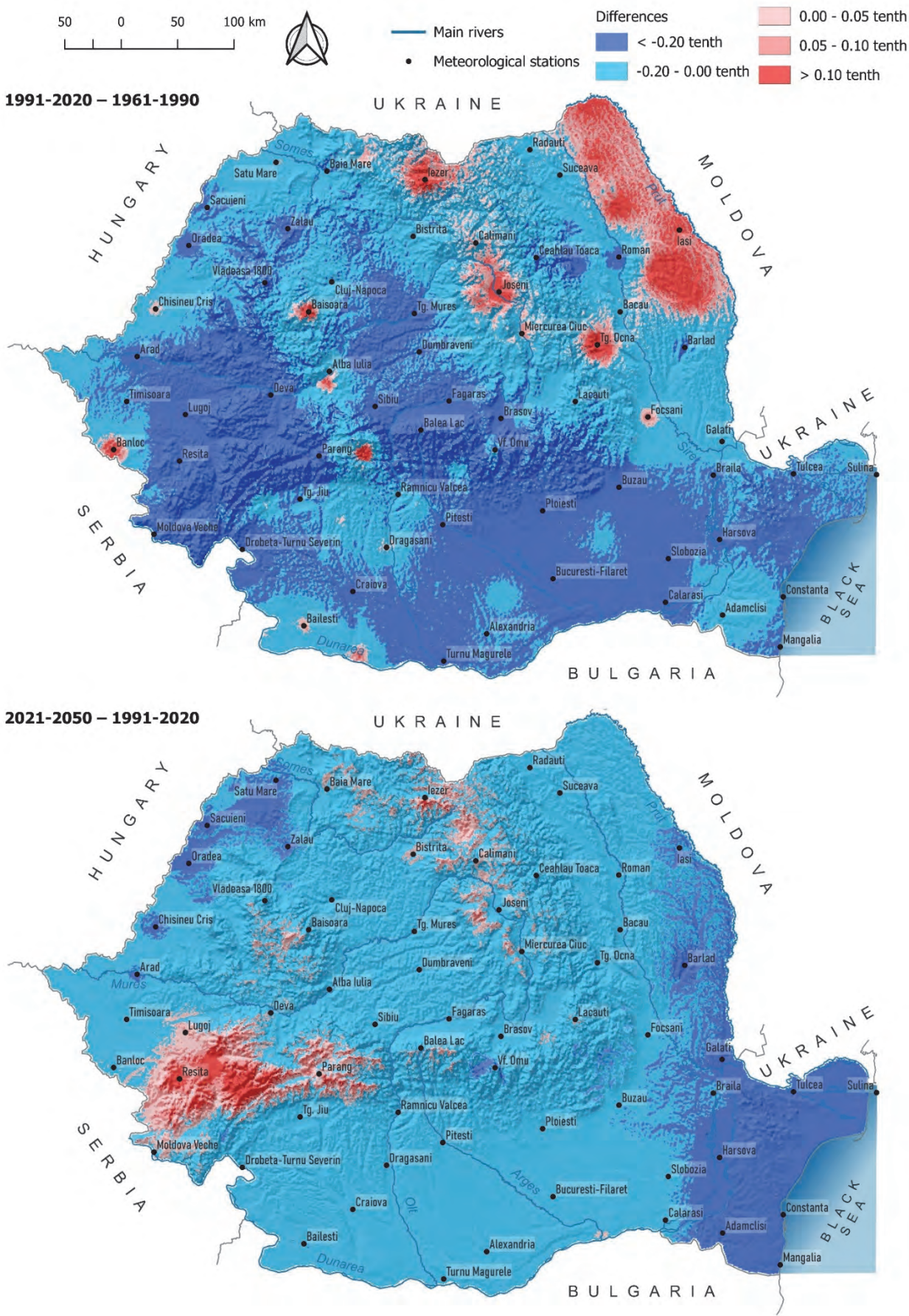
Area (sqkm)			
	1961 - 1990	1991 - 2020	2021-2050
> 7.5 tenths	43026	23133	8803
7.0 - 7.5 tenths	106242	91972	93751
6.5 - 7.0 tenths	80150	98486	86515
6.0 - 6.5 tenths	5052	19860	44046
5.5 - 6.0 tenths	455	1478	1806
< 5.5 tenths	13	9	17

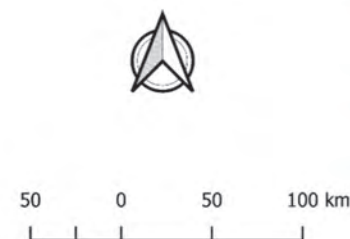


Combined elevation and mean cloud cover profile - December



Difference maps





Cloud cover

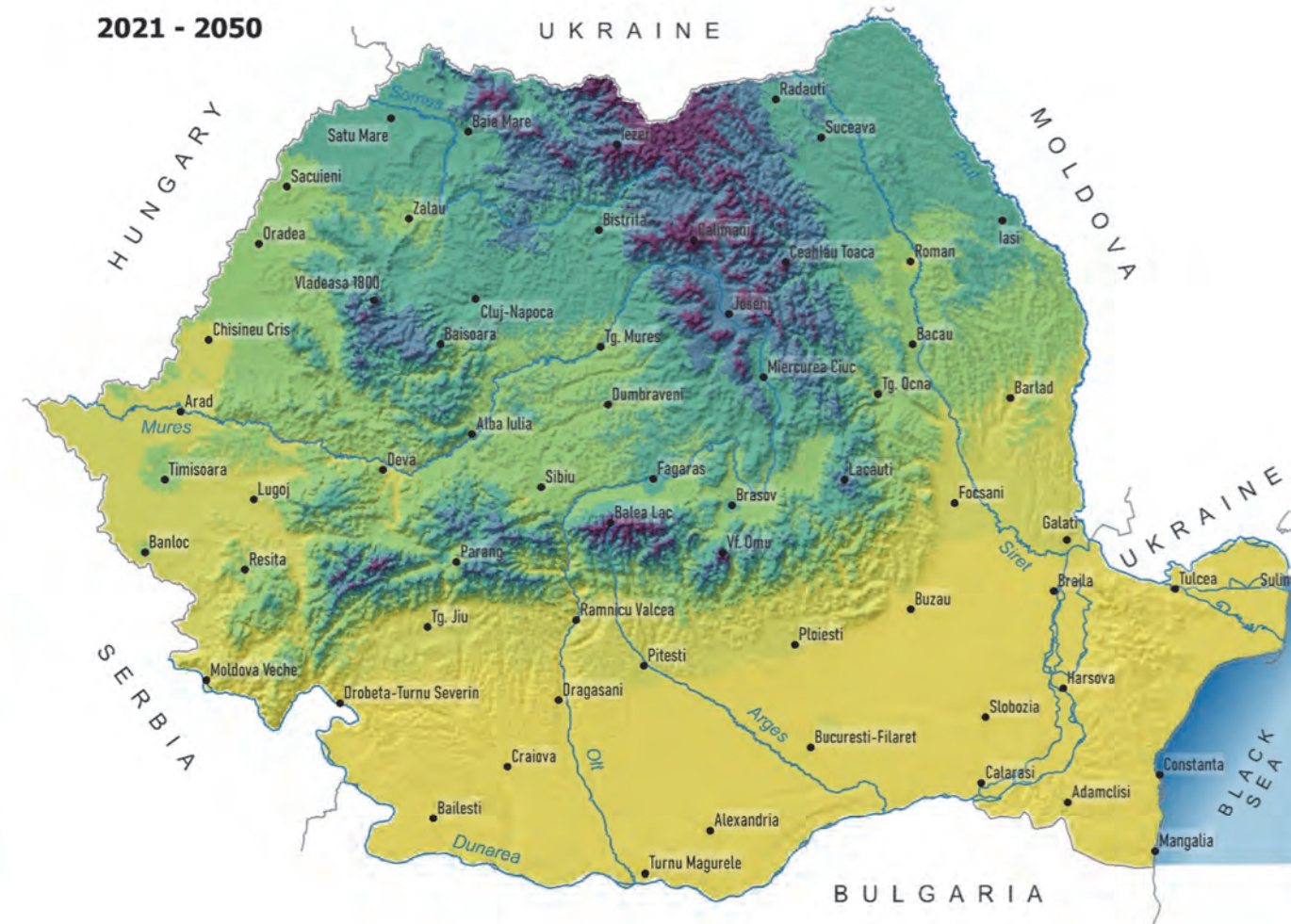


— Main rivers

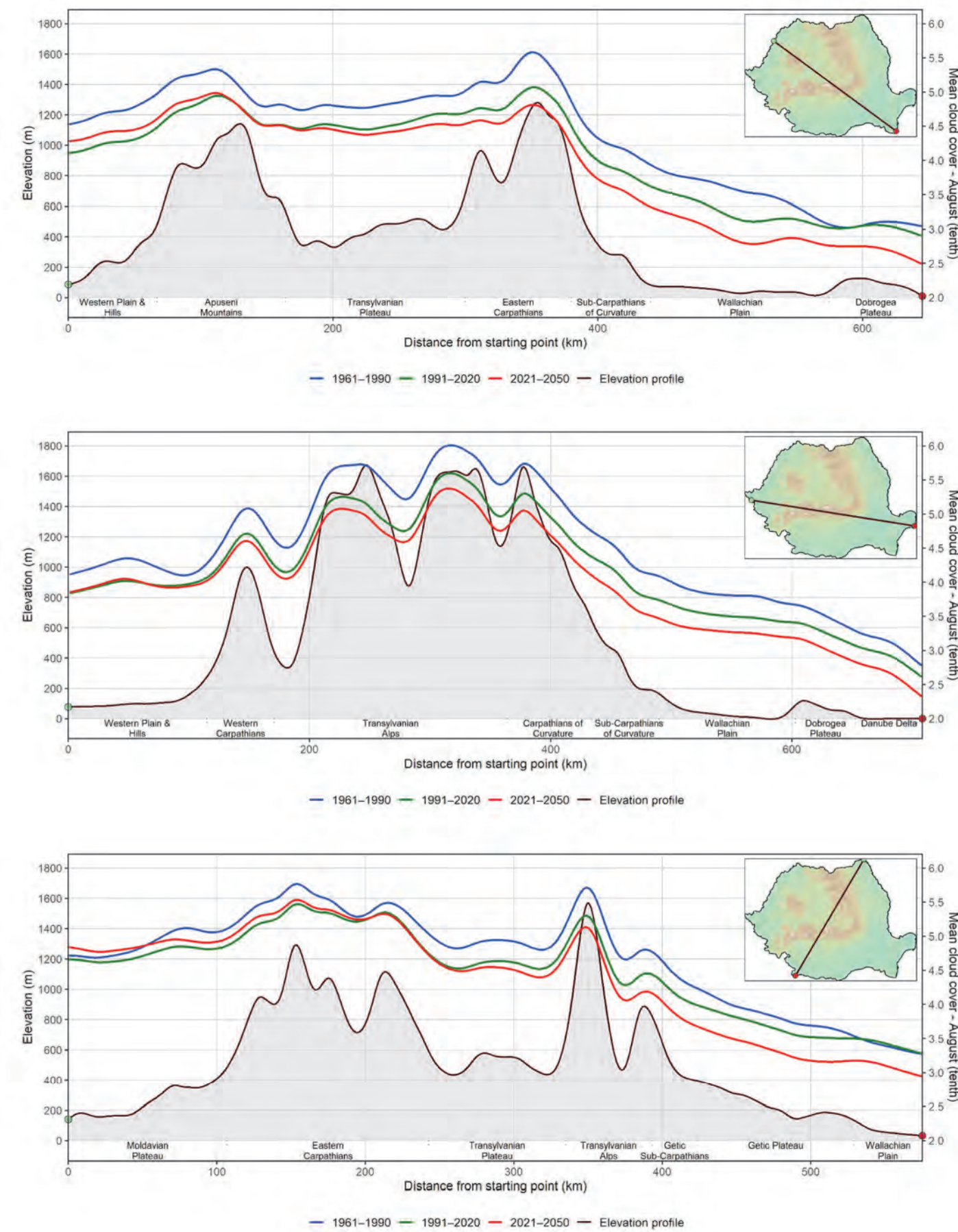
• Meteorological stations

Area (sqkm)

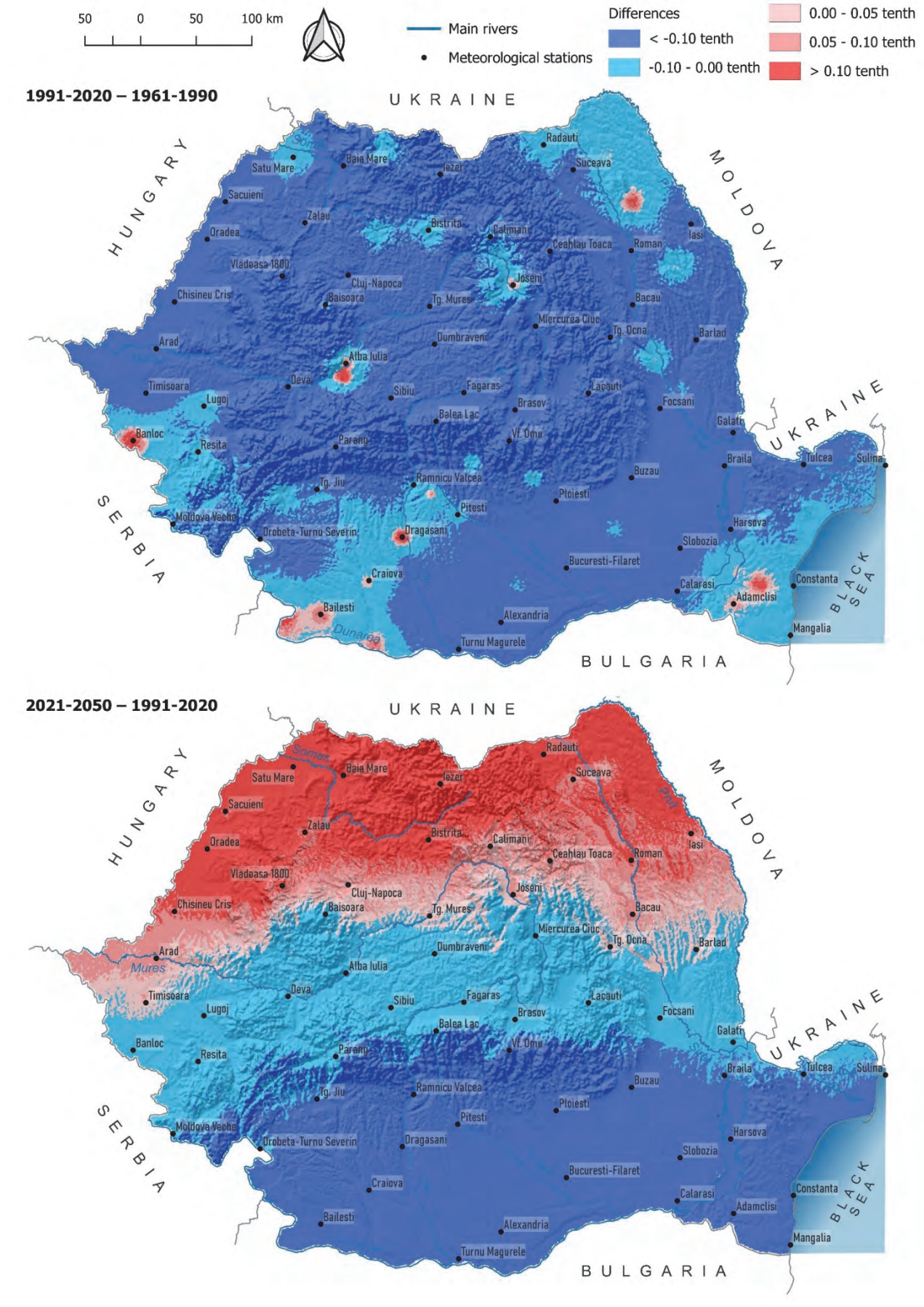
	1961 - 1990	1991 - 2020	2021-2050
> 5.5 tenths	16019	4663	5766
5.0 - 5.5 tenths	32539	19583	20119
4.5 - 5.0 tenths	73600	57388	55216
4.0 - 4.5 tenths	46137	58702	50691
3.5 - 4.0 tenths	43297	48319	36469
< 3.5 tenths	23346	46283	66677

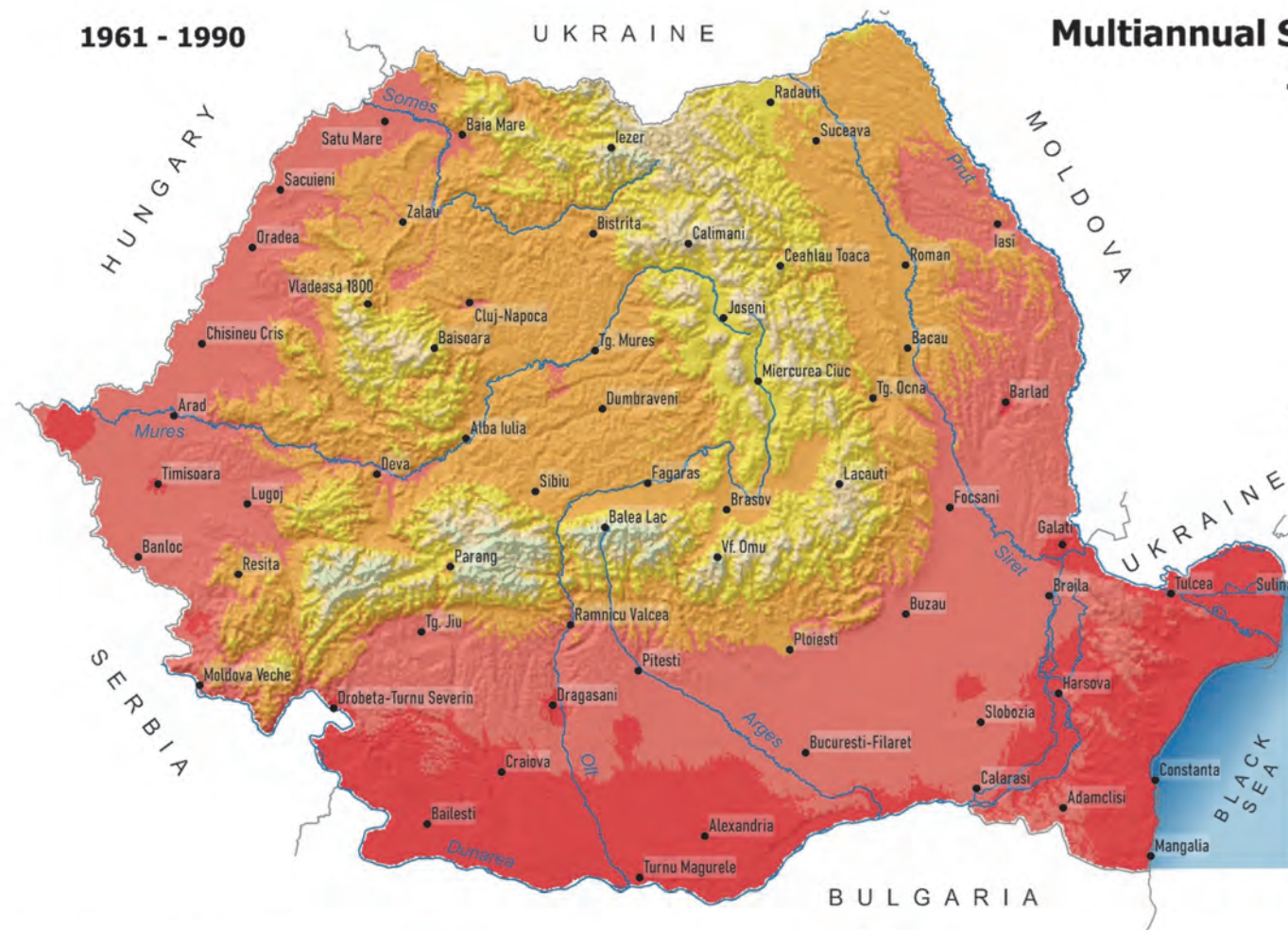


Combined elevation and mean cloud cover profile - August



Difference maps





Sunshine



— Main rivers

• Meteorological stations

Area (sqkm)

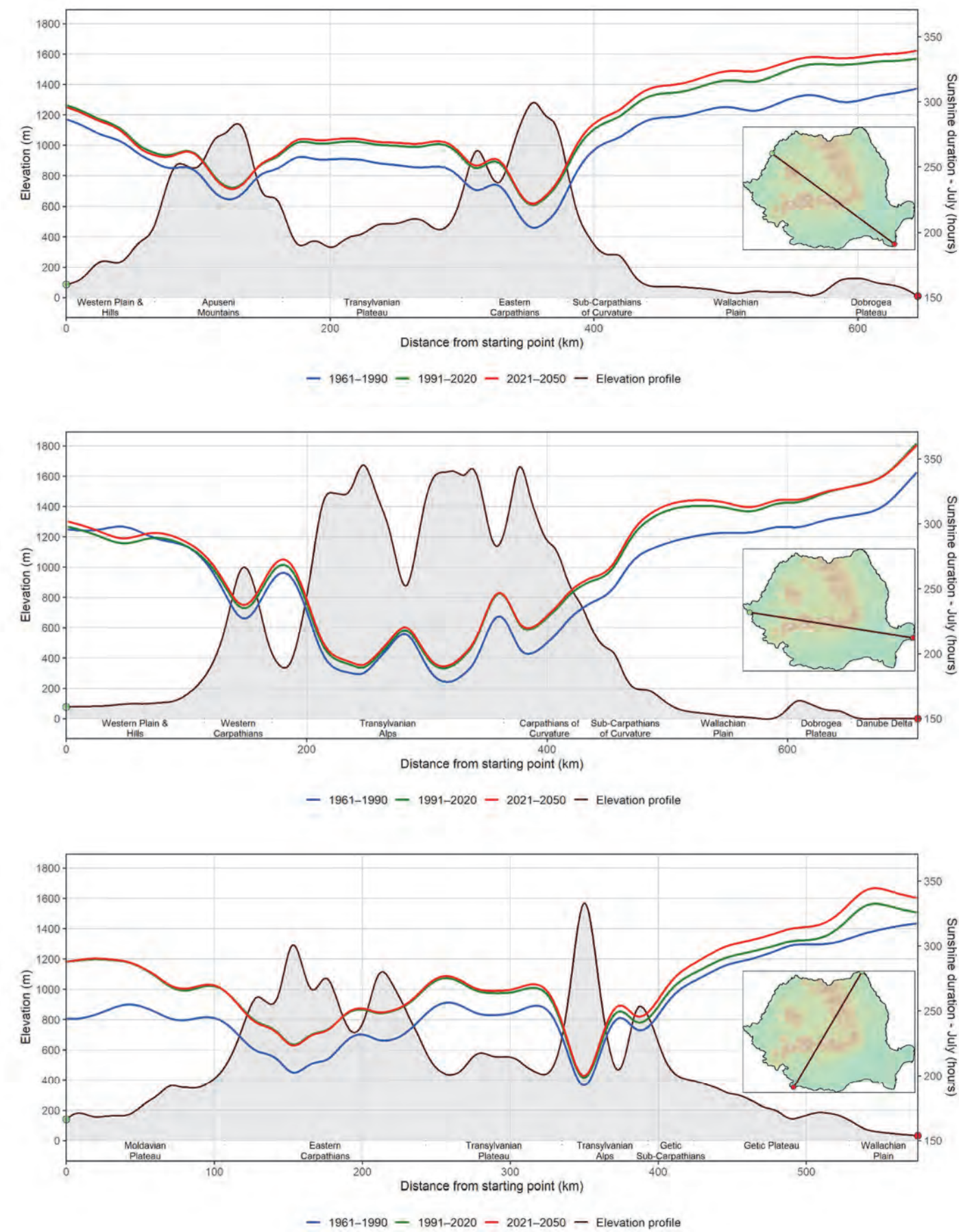
	1961 - 1990	1991 - 2020	2021-2050
> 300 h	35671	73639	85232
270 - 300 h	78364	84051	76227
240 - 270 h	73289	49422	45893
210 - 240 h	31179	20935	20752
180 - 210 h	13451	4920	5013
< 180 h	2984	1971	1821



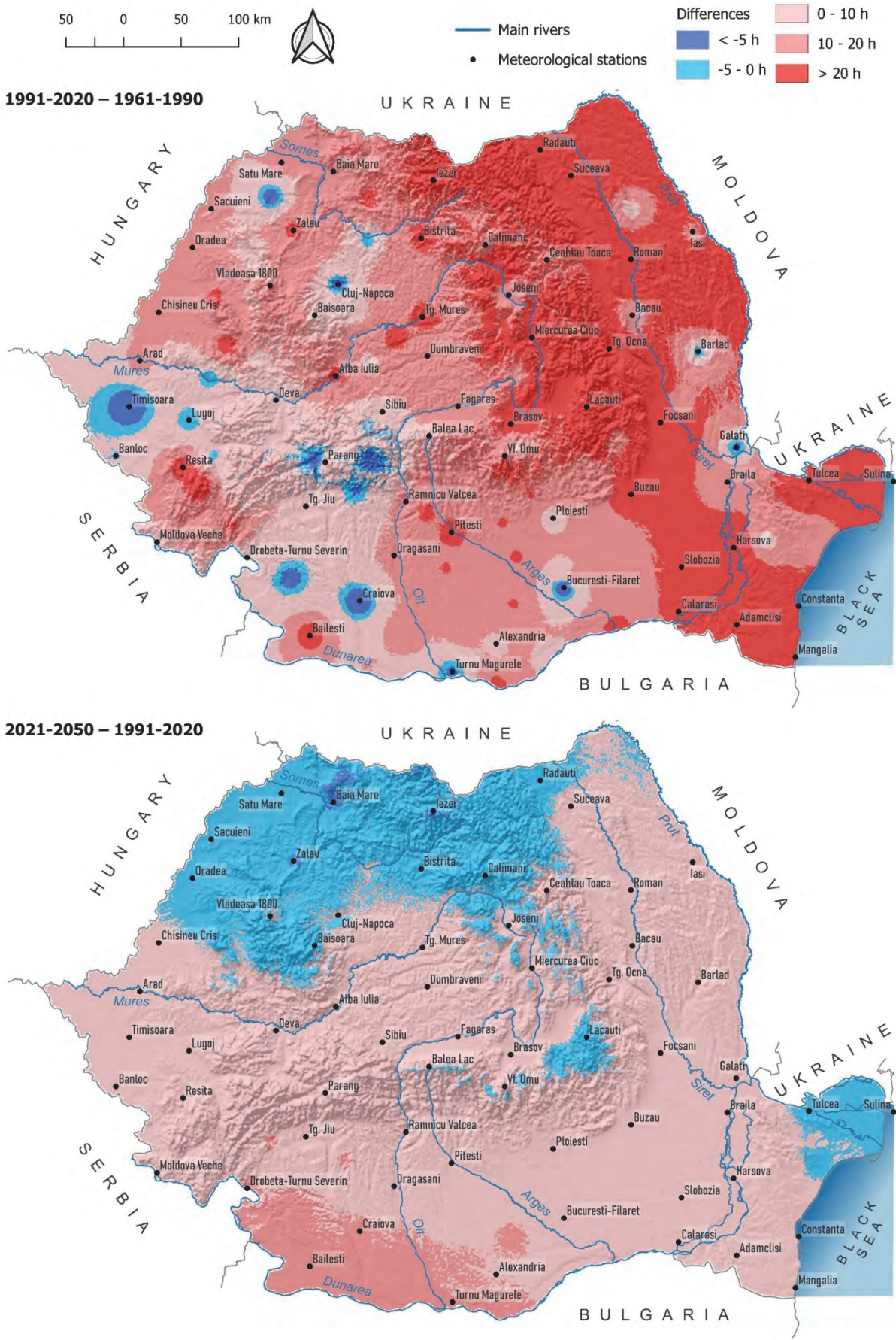
2021 - 2050



Combined elevation and cumulated sunshine duration profile - July



Difference maps





Sunshine



— Main rivers

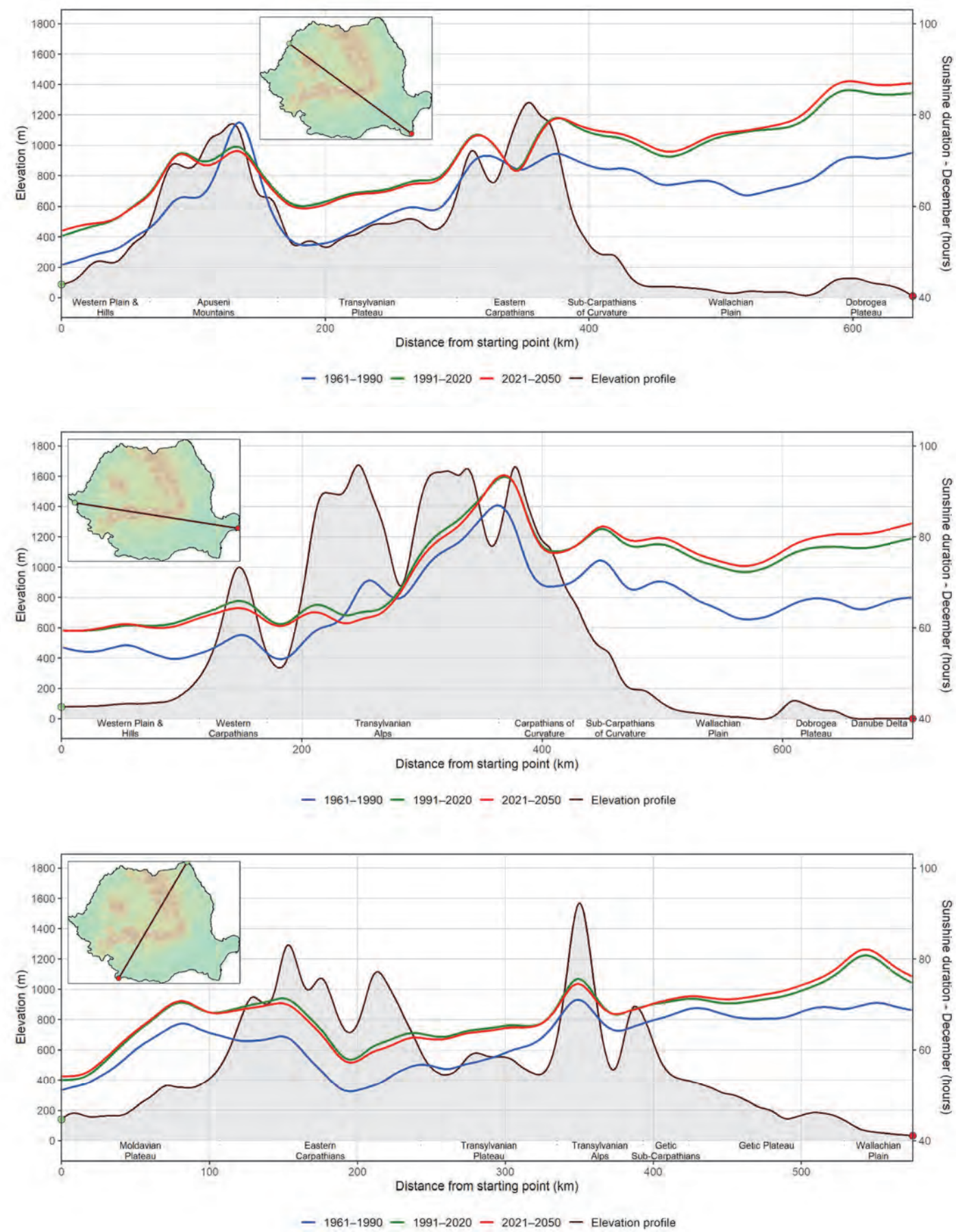
• Meteorological stations

Area (sqkm)

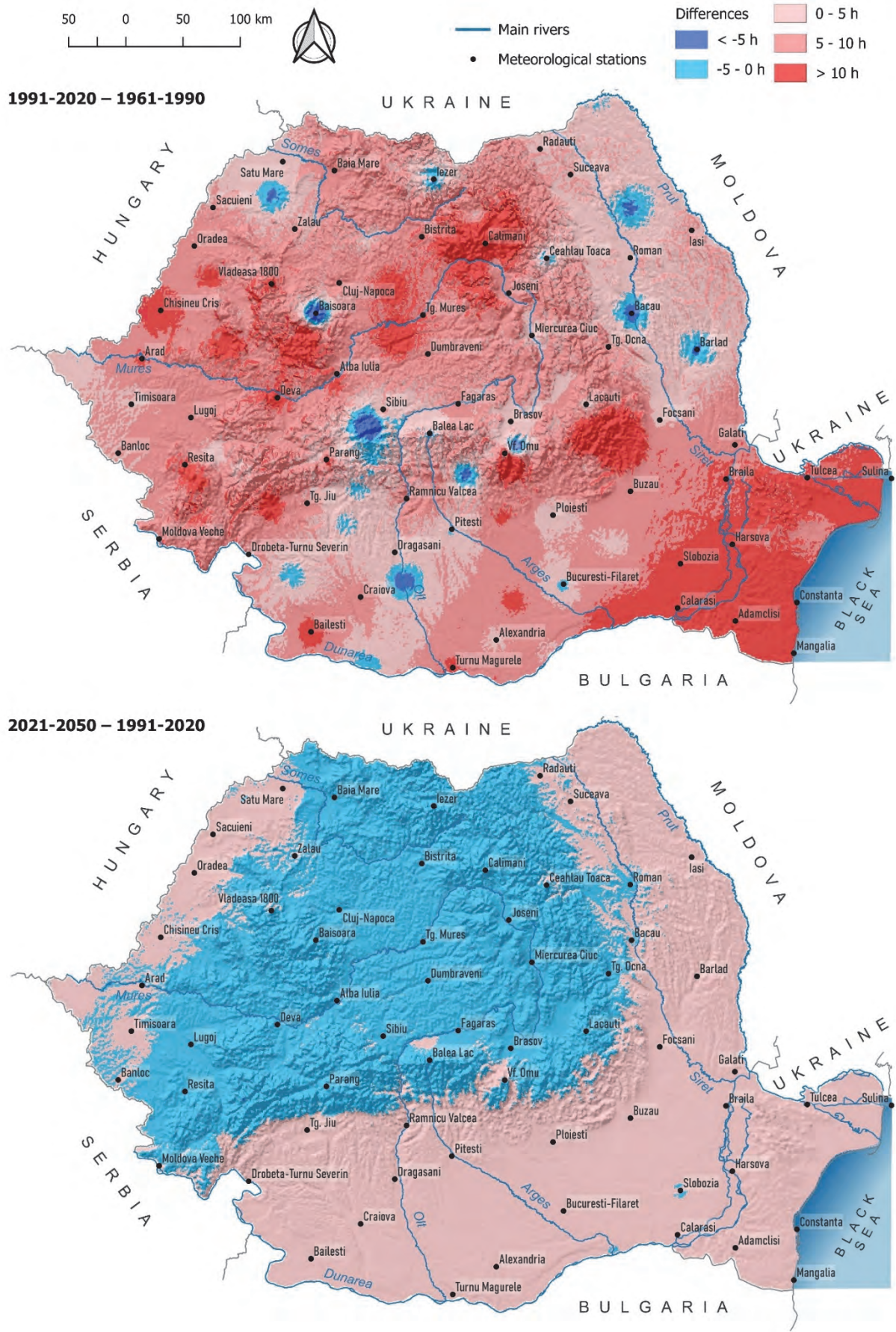
	1961 - 1990	1991 - 2020	2021-2050
> 90 h	217	697	835
80 - 90 h	2246	16133	21264
70 - 80 h	25307	84987	80530
60 - 70 h	113540	89518	85025
50 - 60 h	65450	40375	43335
< 50 h	28178	3228	3949

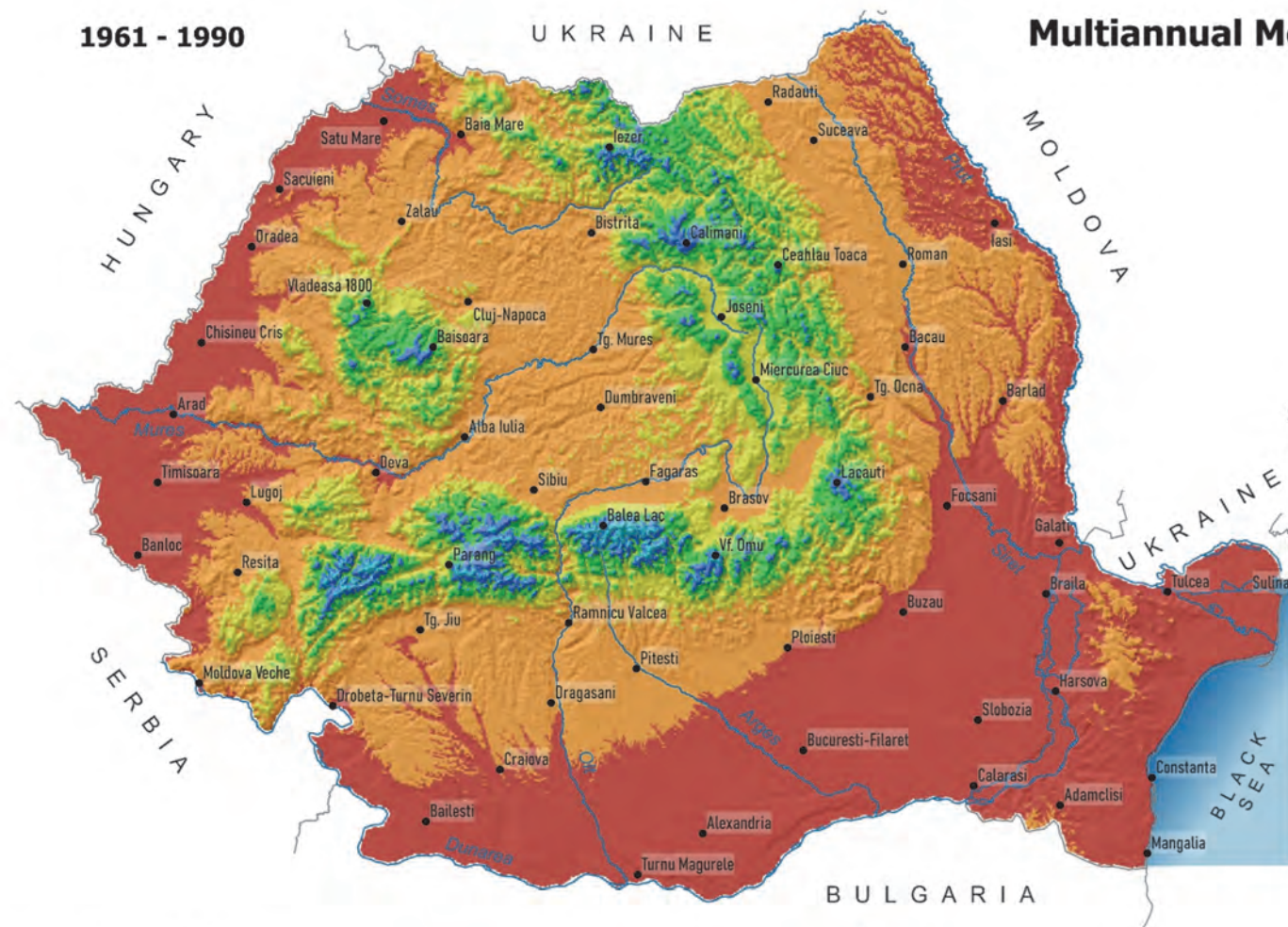


Combined elevation and cummulated sunshine duration profile - December

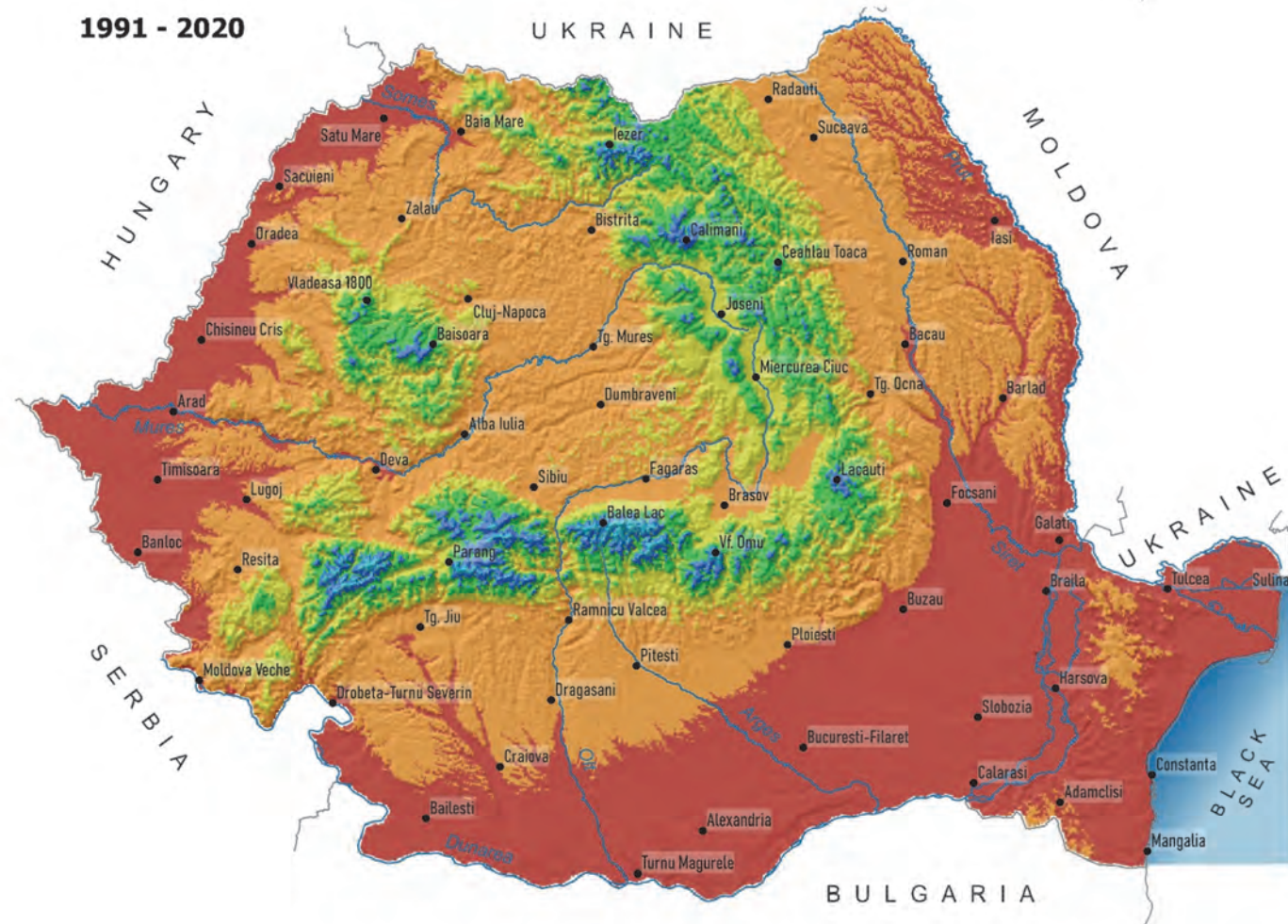


Difference maps

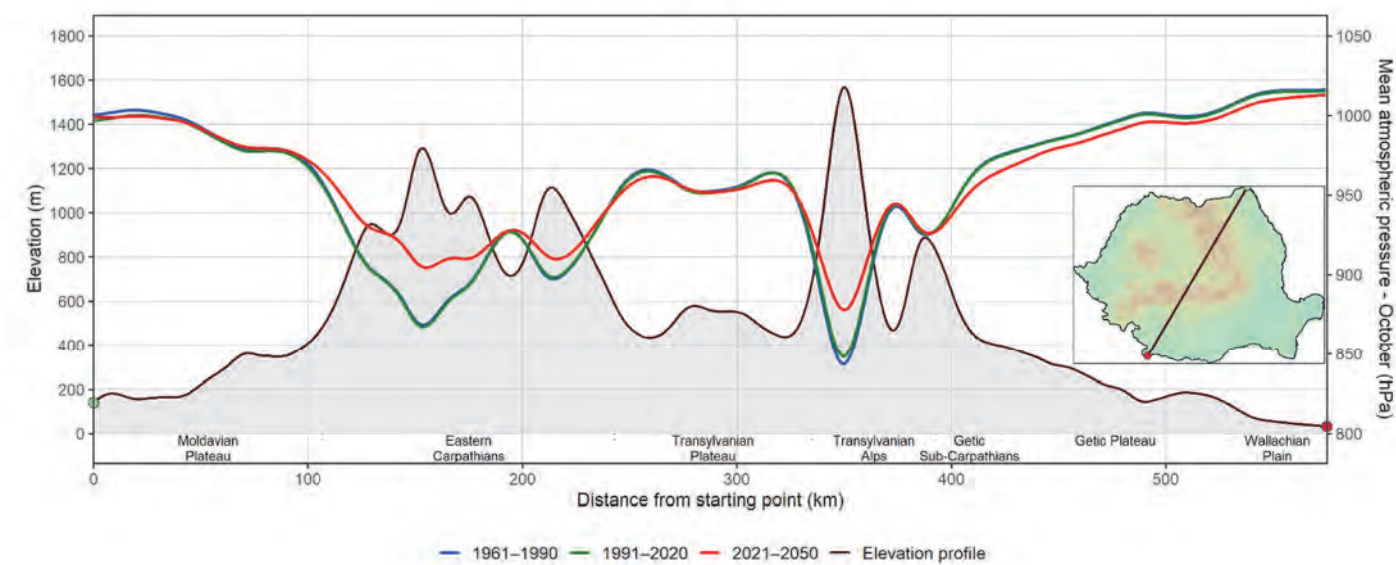
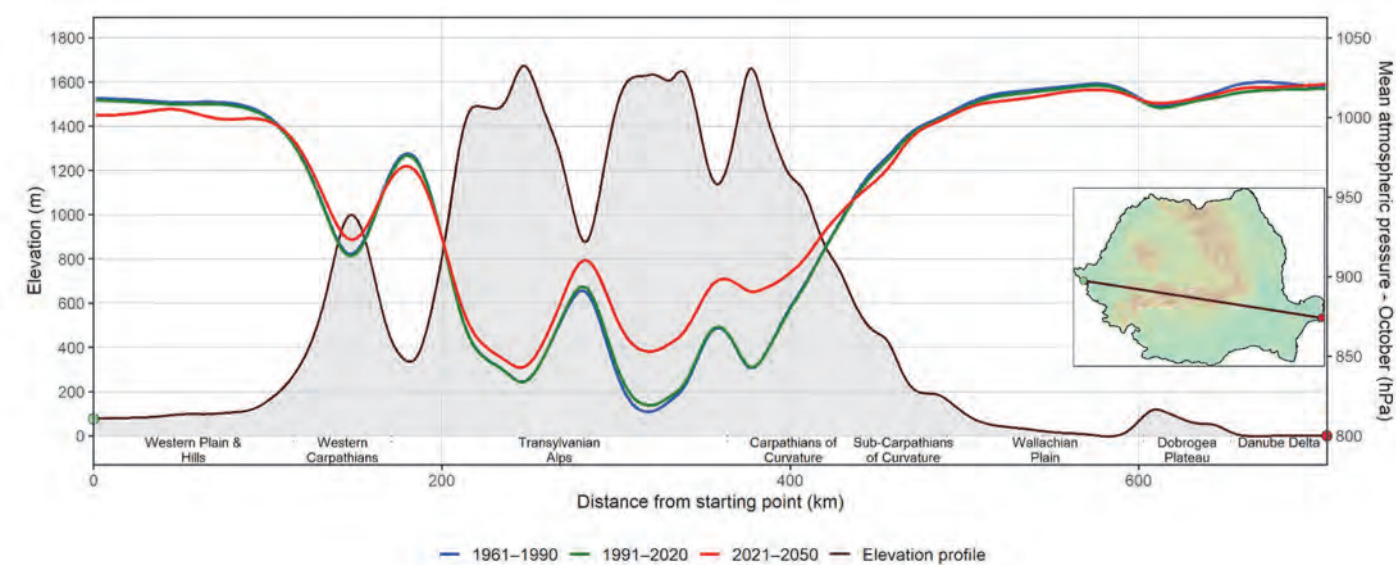
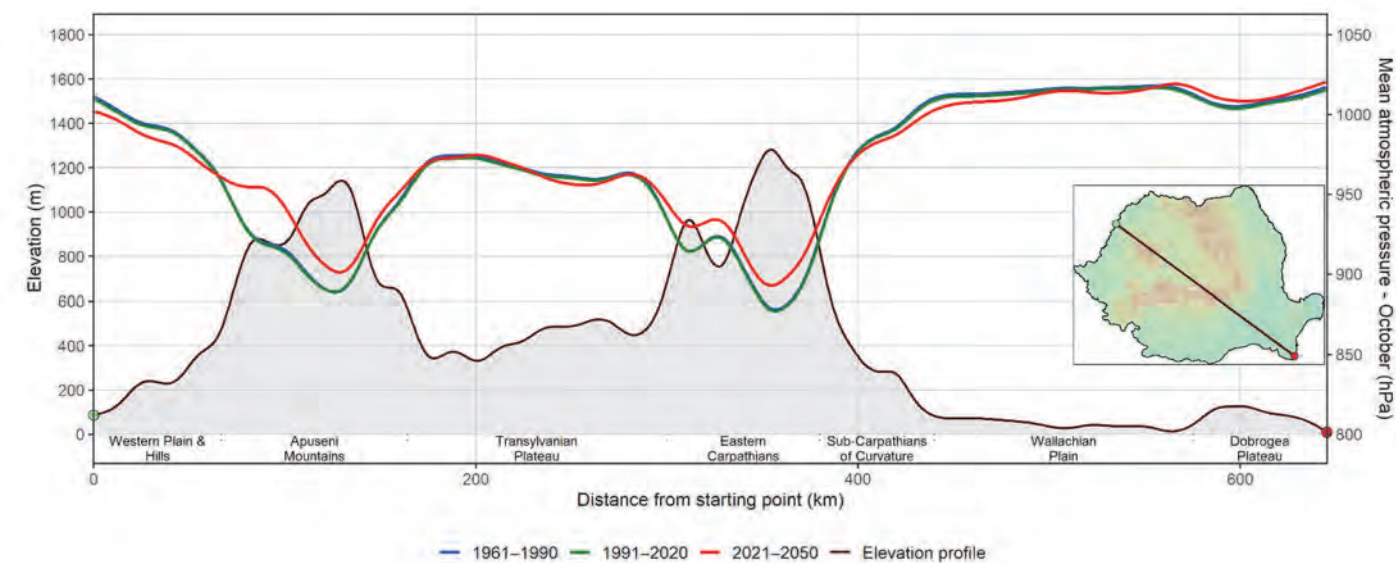




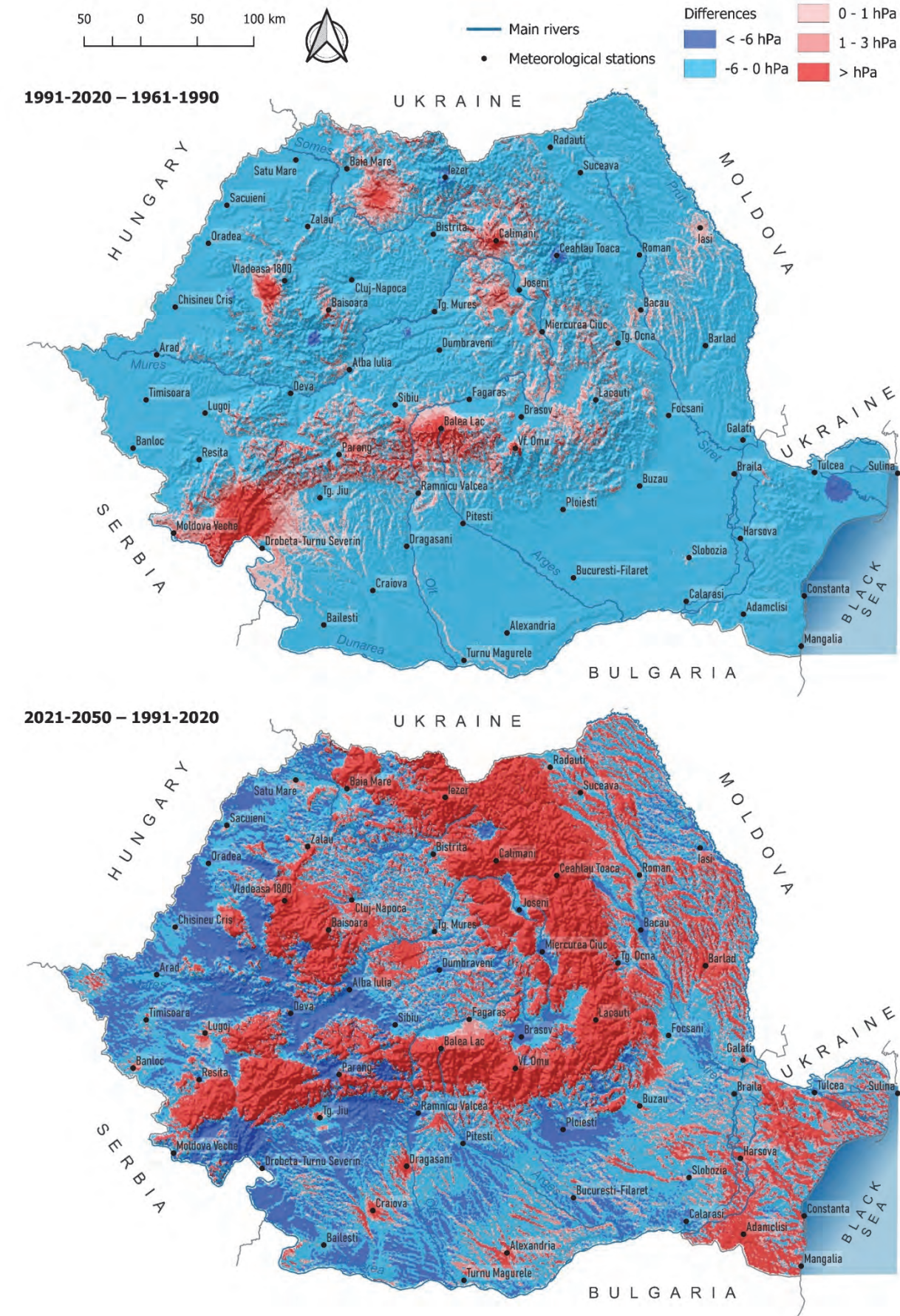
Area (sqkm)			
1961 - 1990	1991 - 2020	2021-2050	
85767	82121	68524	
92243	95567	111356	
33120	33423	40621	
18310	18397	12287	
4562	4547	2034	
936	883	116	



Combined elevation and mean atmospheric pressure profile - October

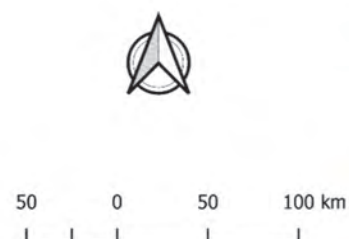


Difference maps

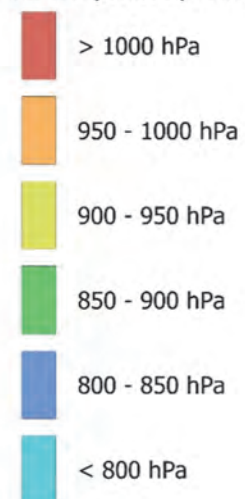




Multiannual Mean Atmospheric Pressure APRIL



Atmospheric pressure



— Main rivers

• Meteorological stations

Area (sqkm)

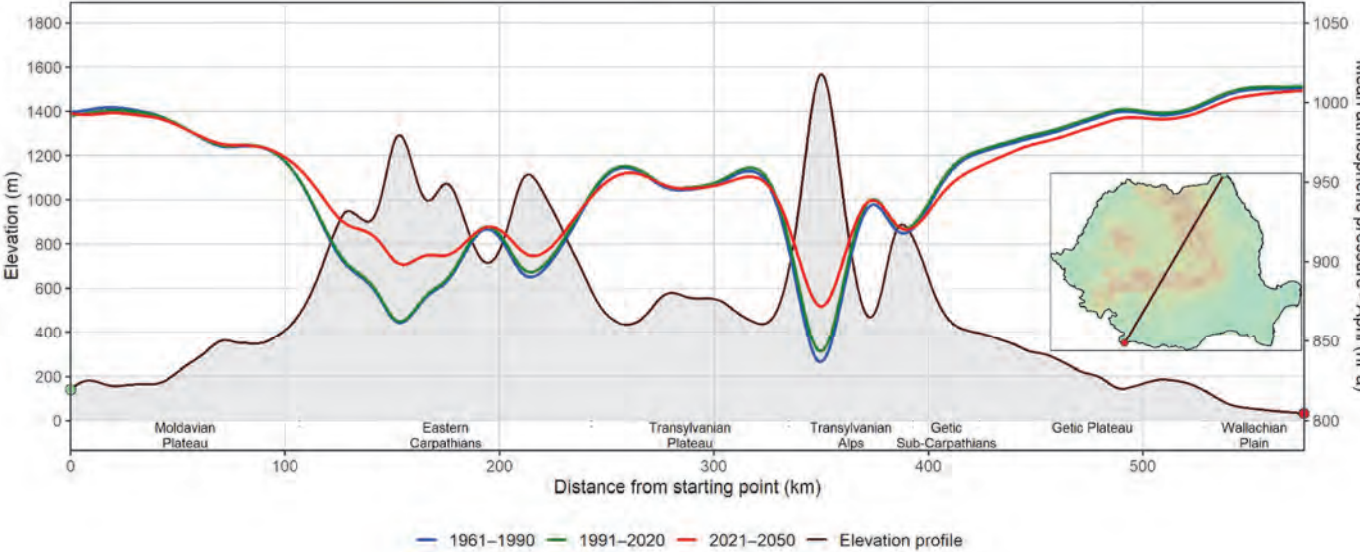
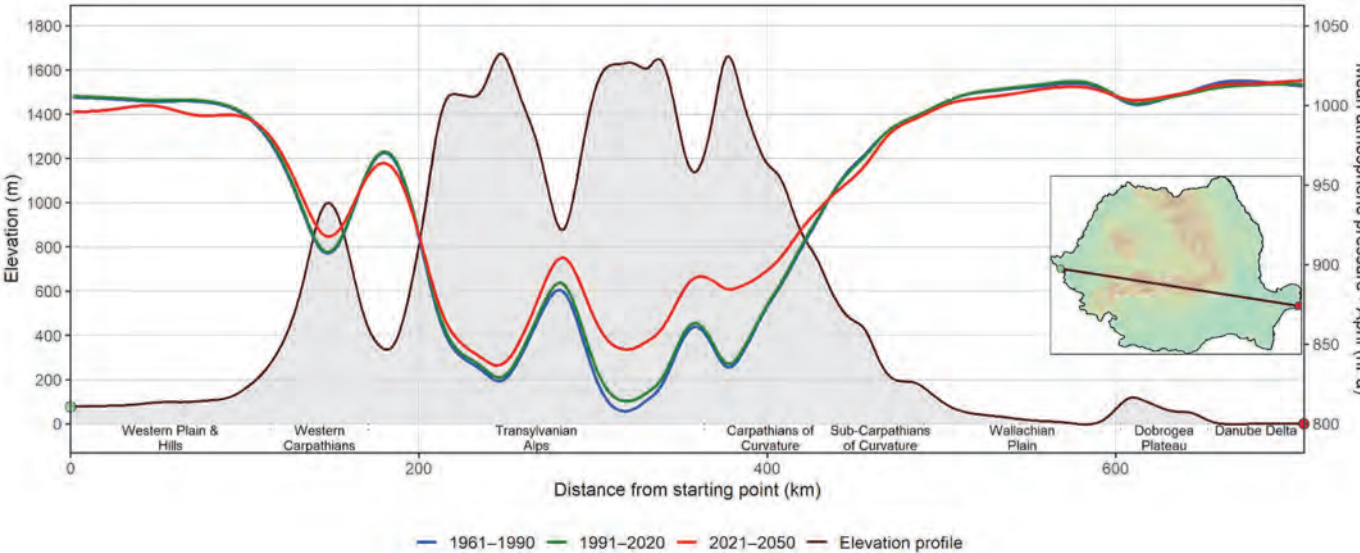
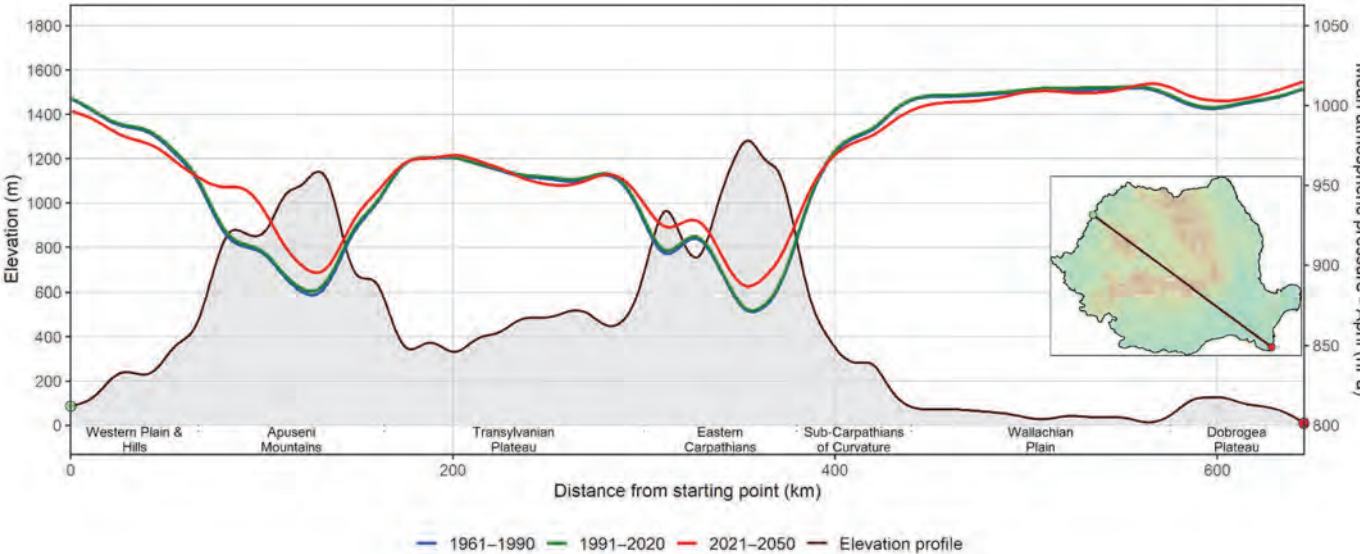
	1961 - 1990	1991 - 2020	2021-2050
> 1000 hPa	60198	63409	47692
950 - 1000 hPa	109775	108389	123559
900 - 950 hPa	37442	36669	45918
850 - 900 hPa	20575	20051	15030
800 - 850 hPa	5707	5345	2532
< 800 hPa	1241	1075	207



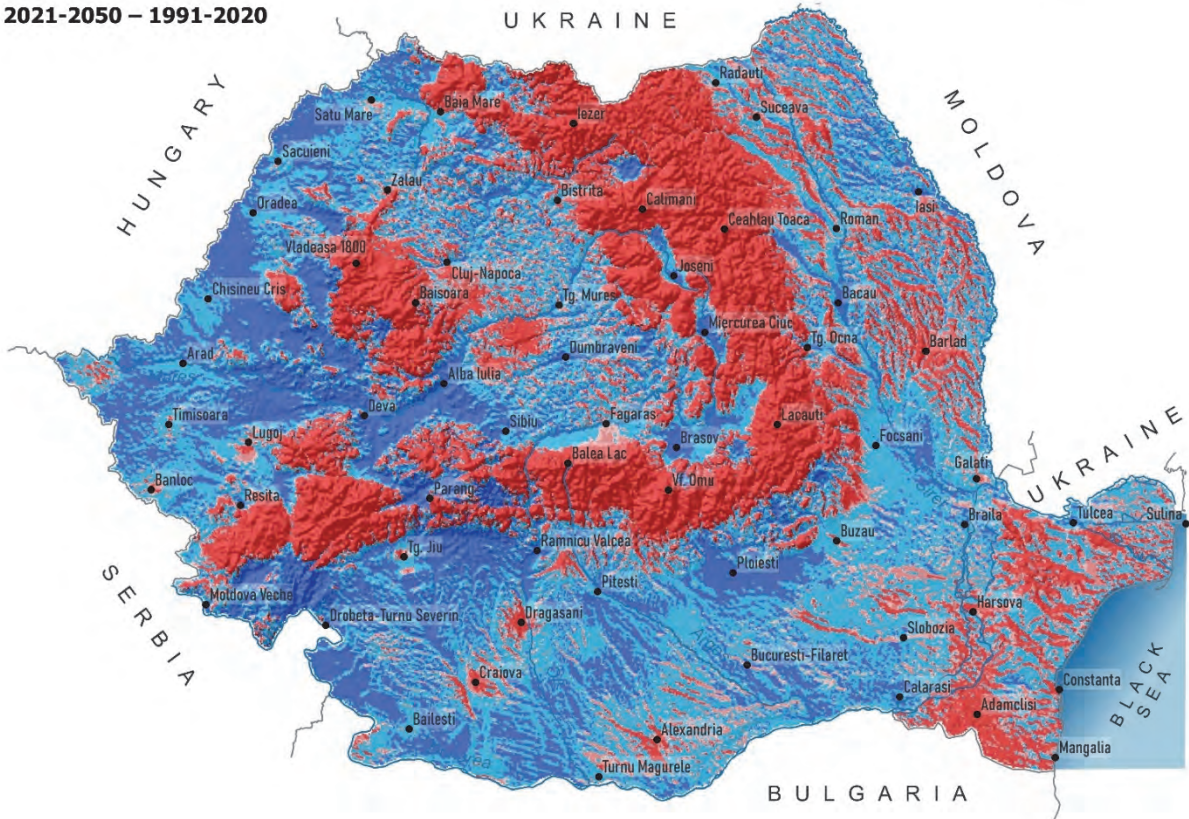
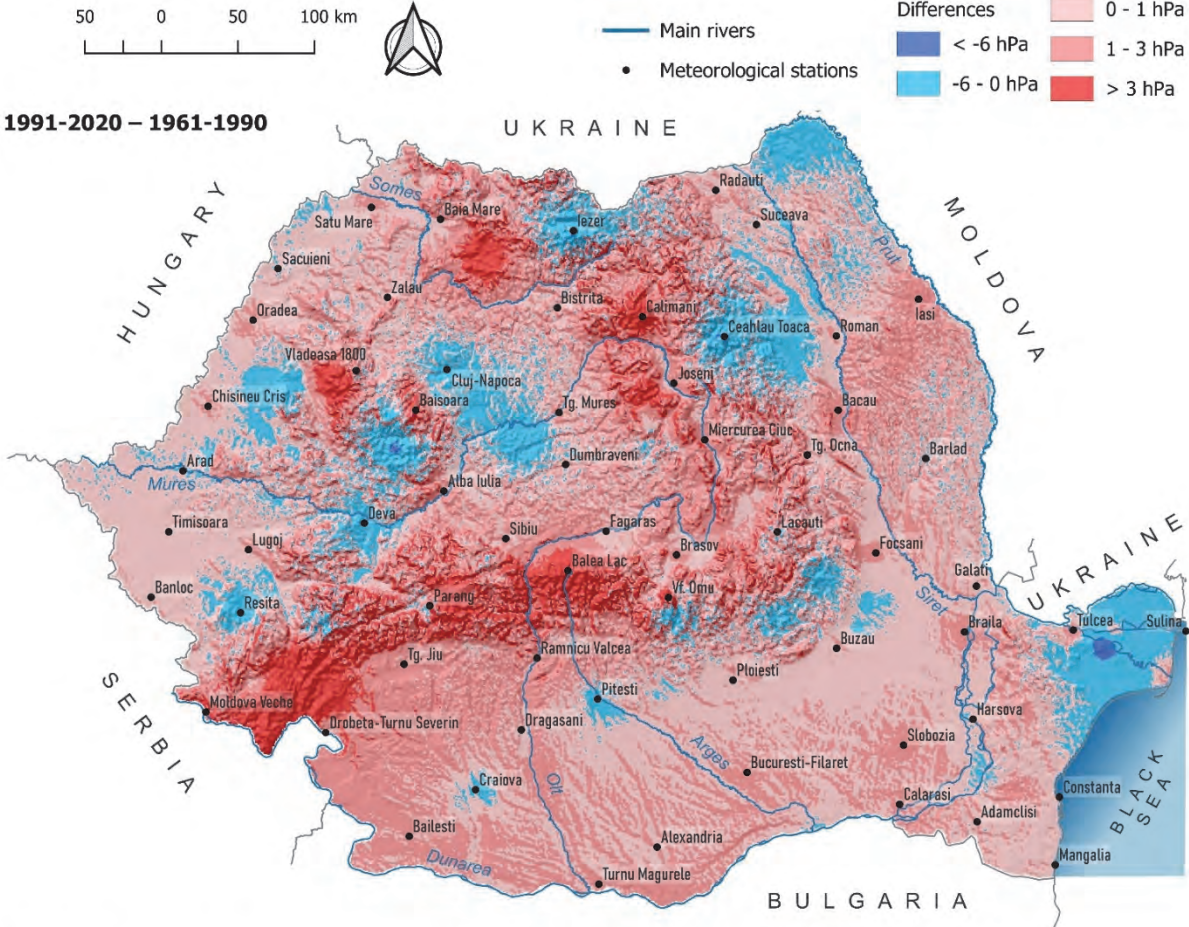
2021 - 2050



Combined elevation and mean atmospheric pressure profile - April

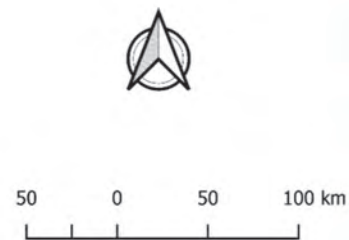


Difference maps





Multiannual Mean Wind Speed MARCH



Wind speed



- Main rivers
- Meteorological stations

Area (sqkm)

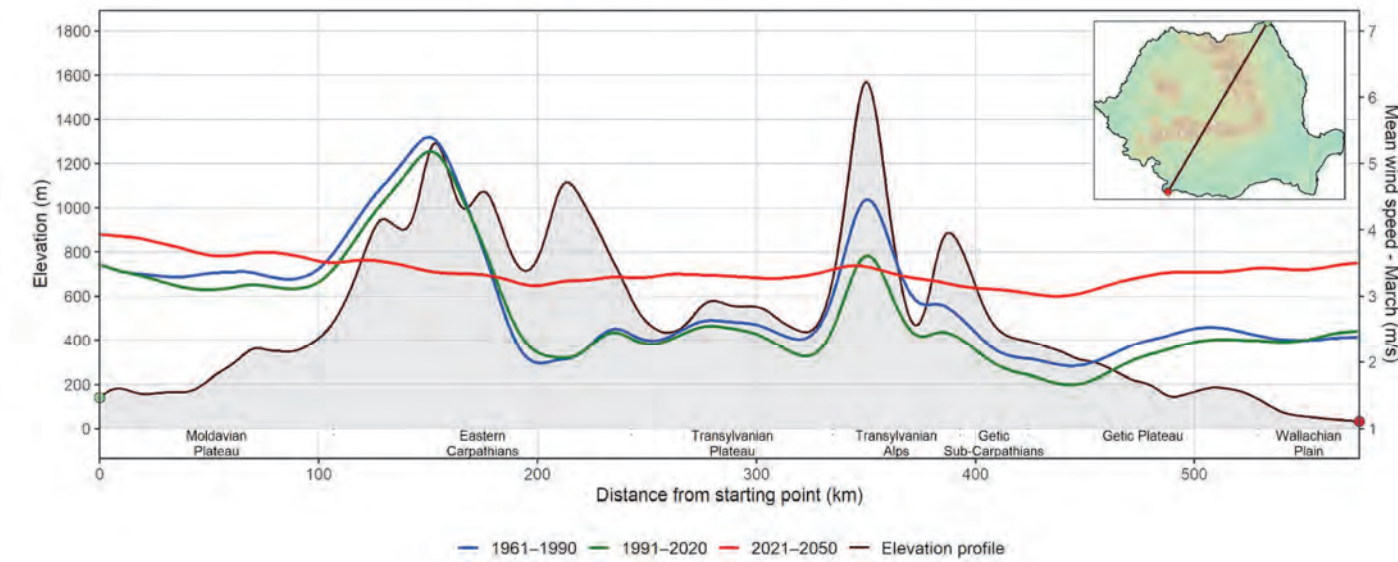
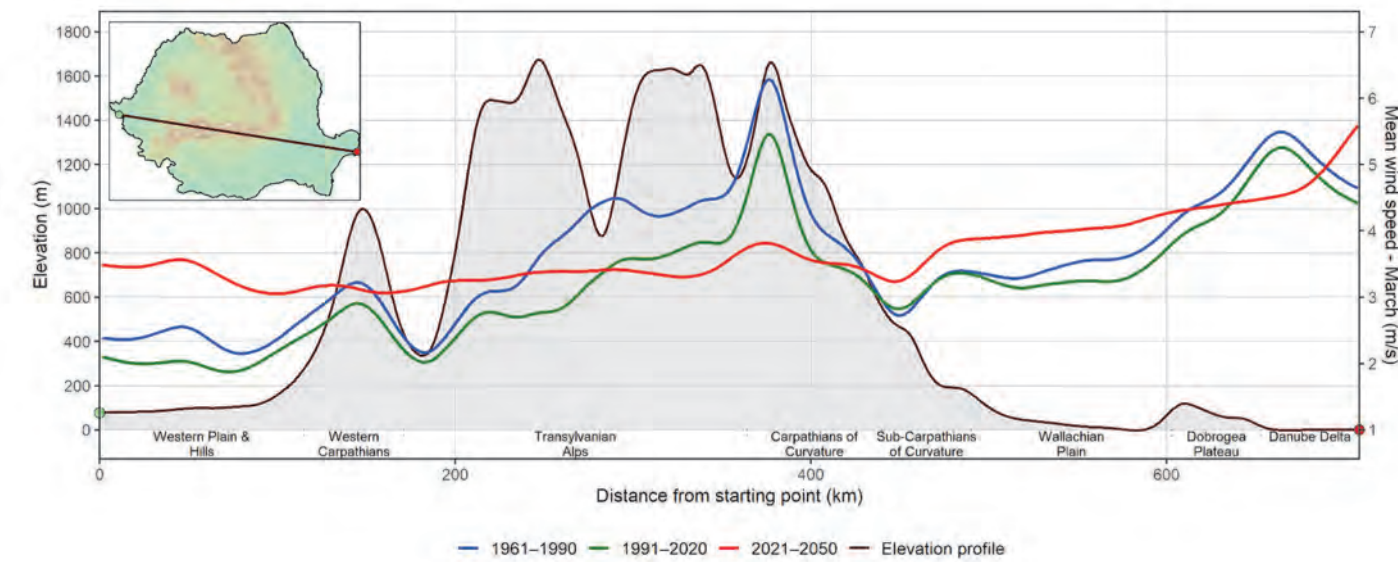
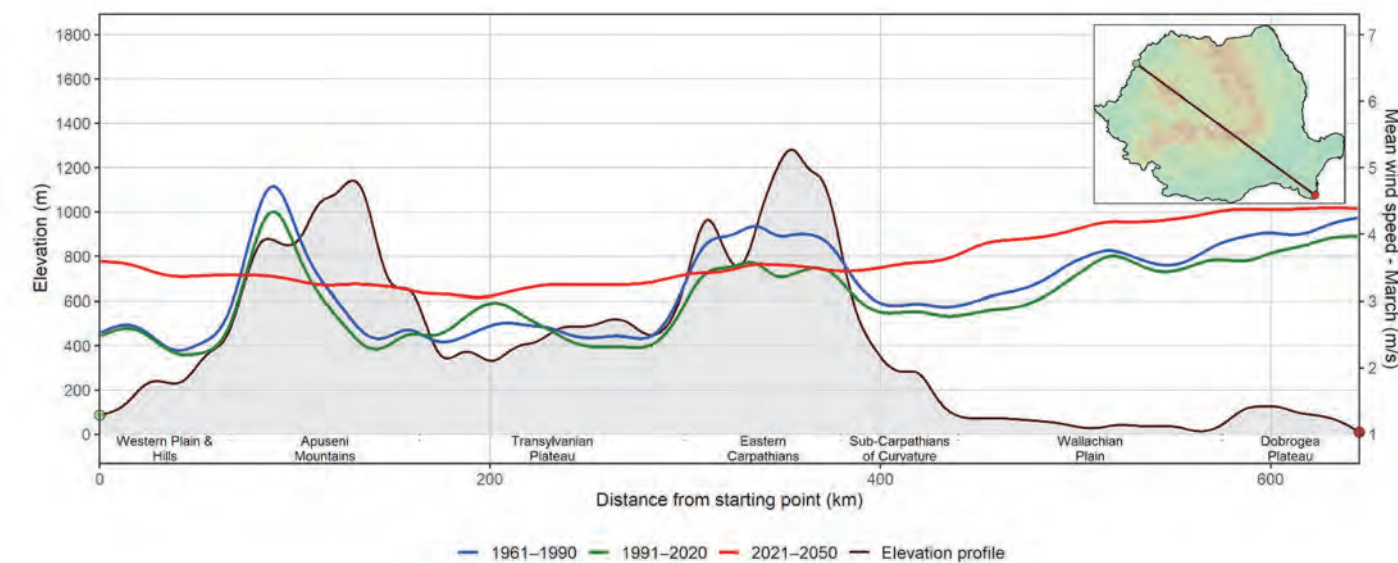
	1961 - 1990	1991 - 2020	2021-2050
> 6 m/s	2169	1355	0
5 - 6 m/s	4735	2893	421
4 - 5 m/s	29213	16456	29038
3 - 4 m/s	77933	73385	191060
2 - 3 m/s	102993	116813	14419
< 2 m/s	17895	24036	0



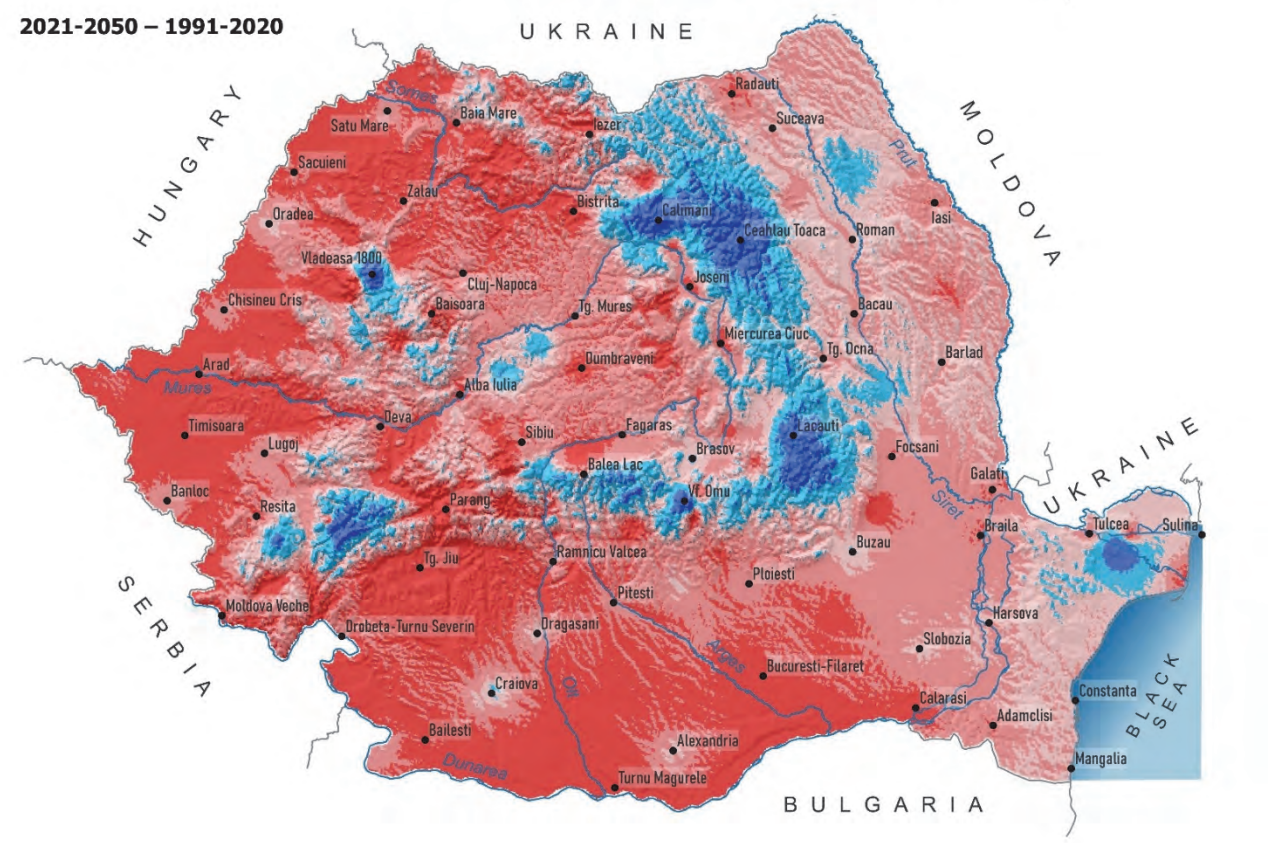
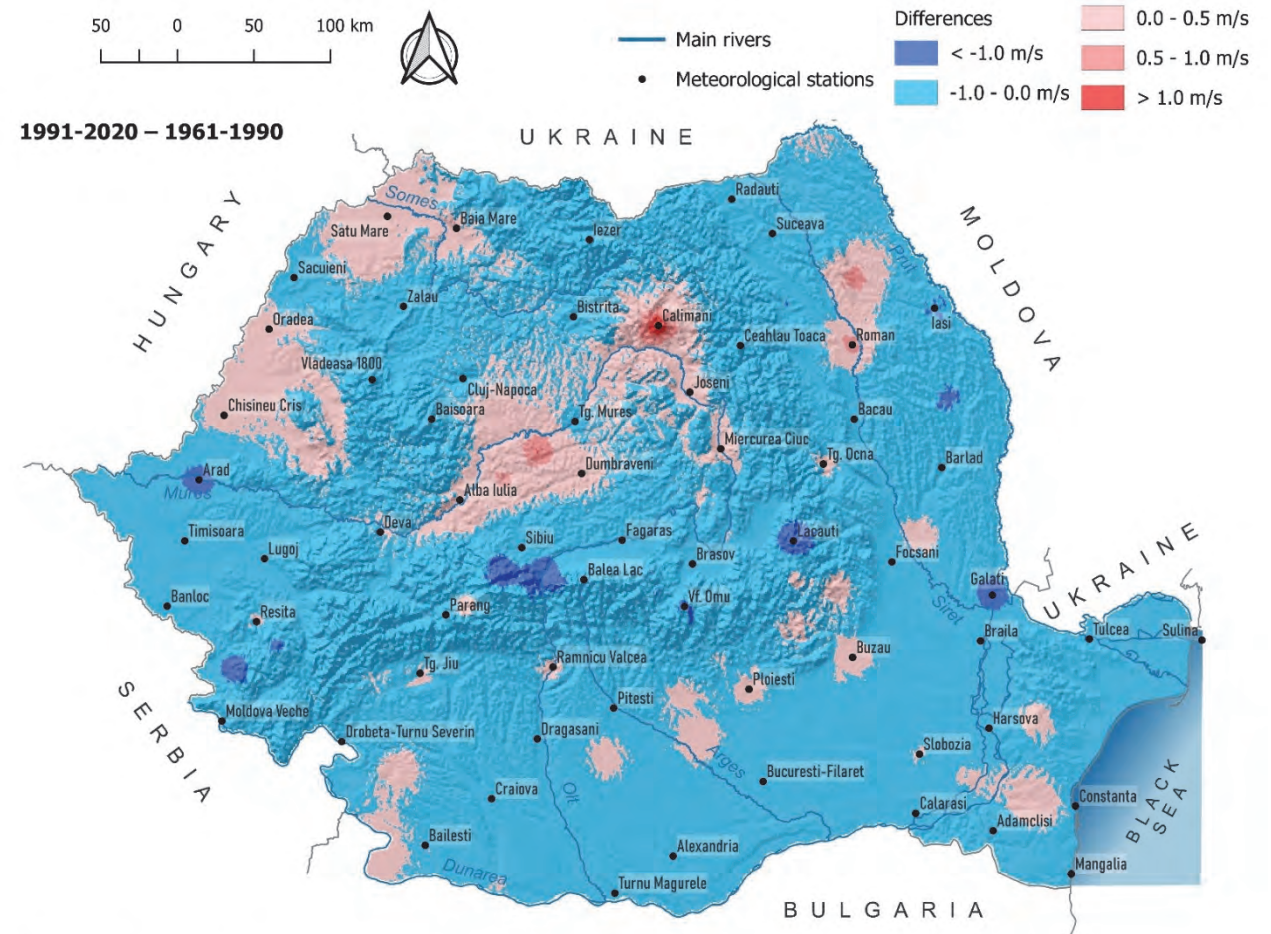
2021 - 2050



Combined elevation and mean wind speed profile - March



Difference maps

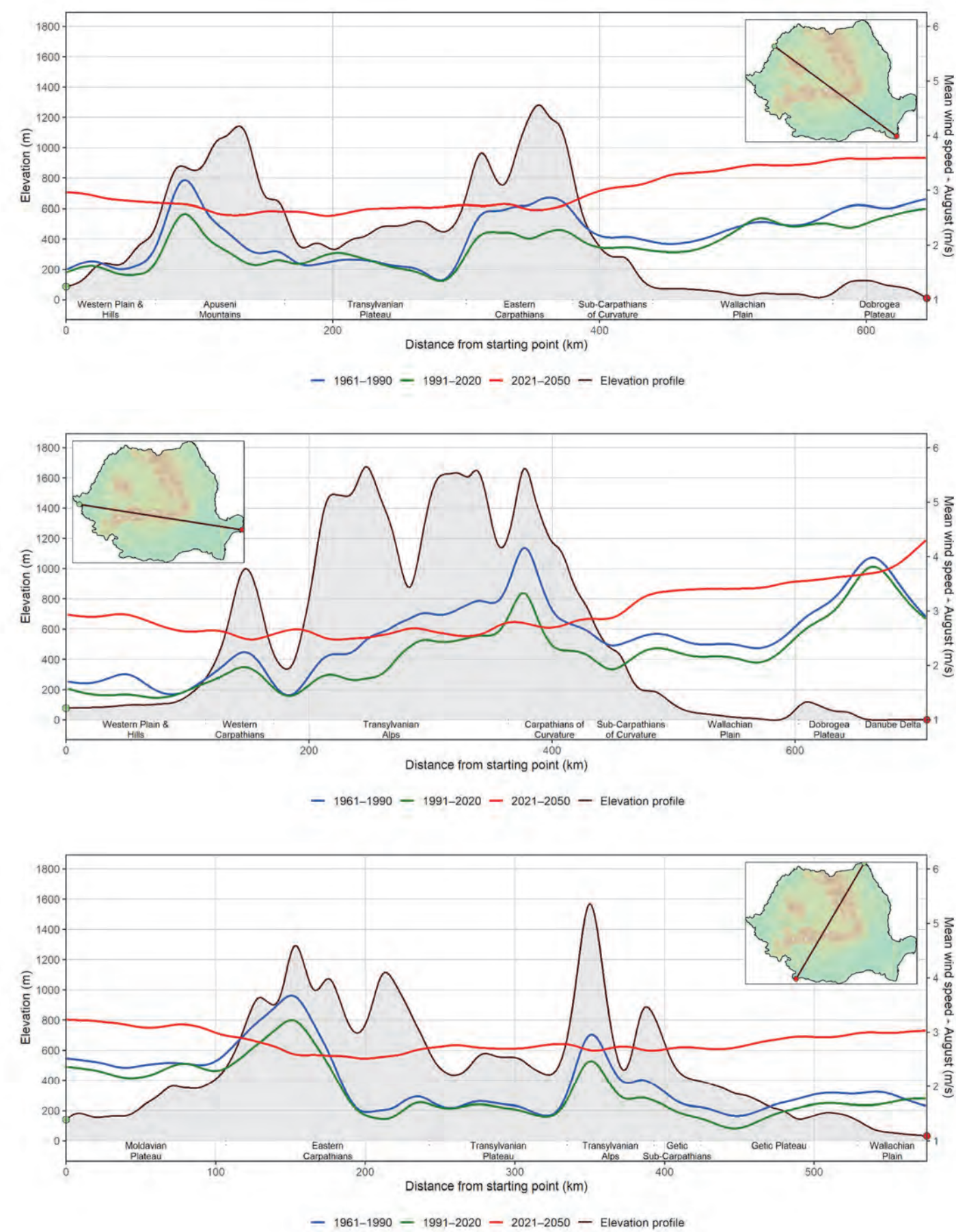




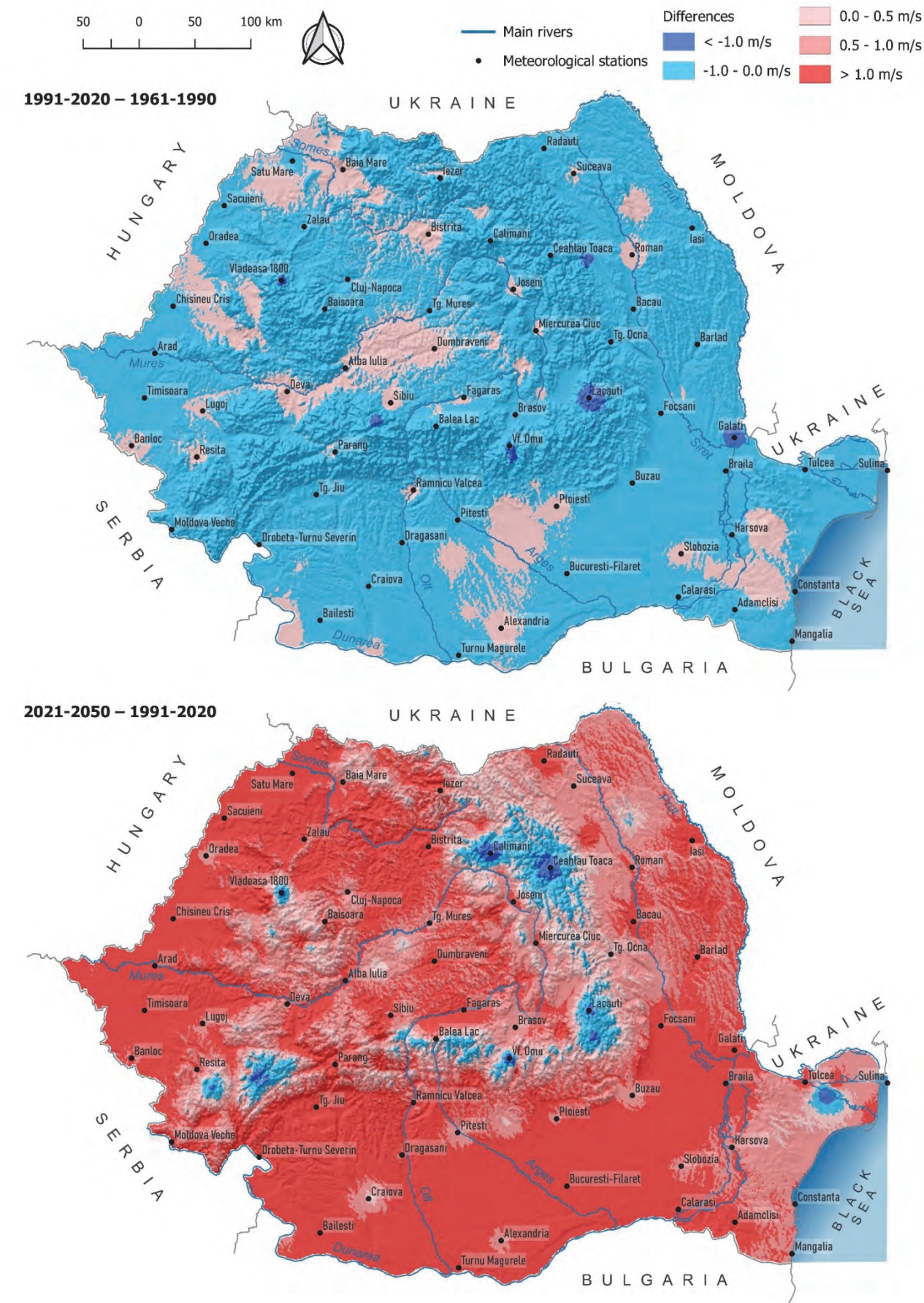
Area (sqkm)		
1961 - 1990	1991 - 2020	2021-2050
7908	2792	19066
14897	6754	68642
44946	22981	133753
51488	64374	13477
114906	136956	0
793	1081	0

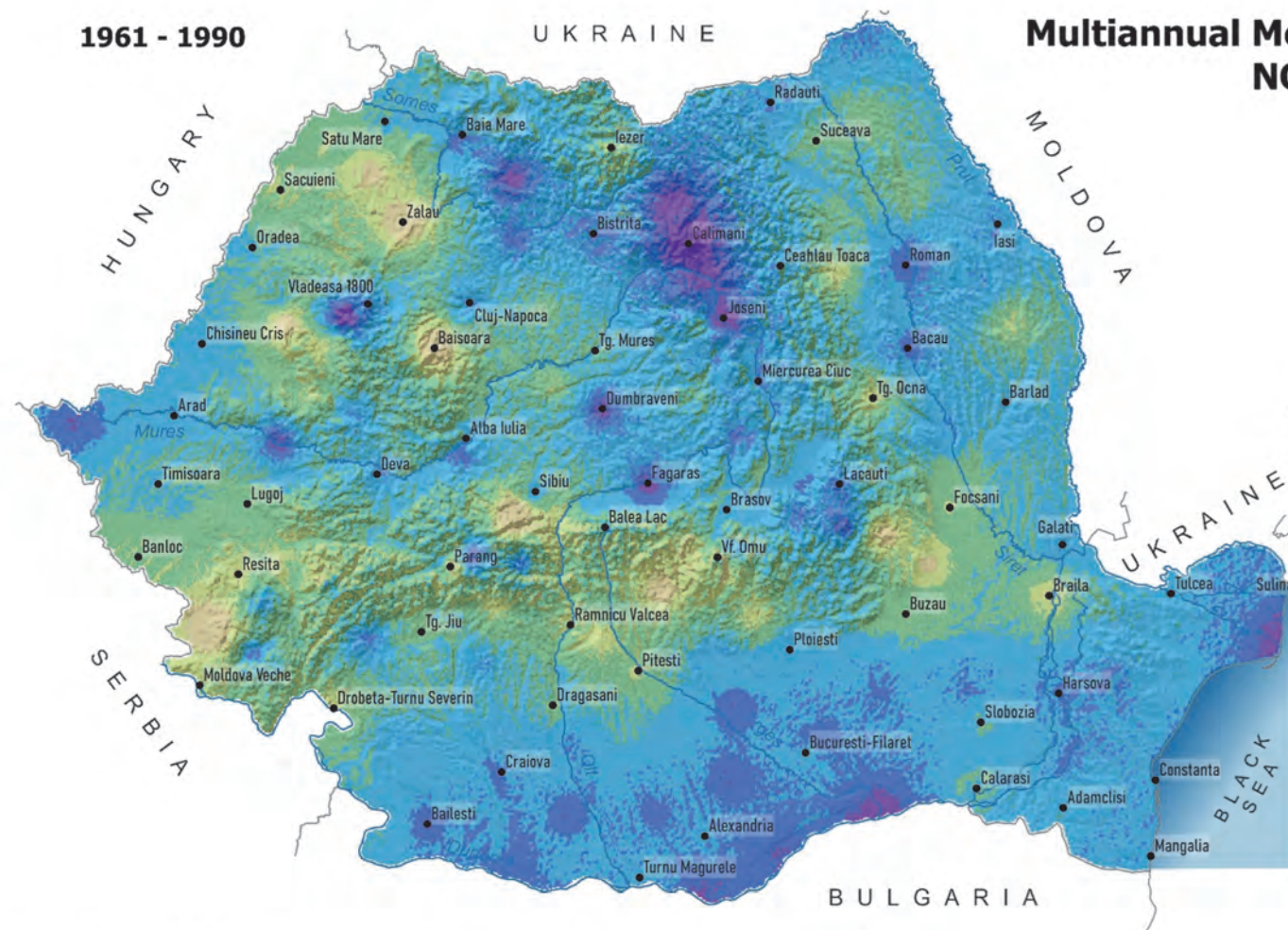


Combined elevation and mean wind speed profile - August

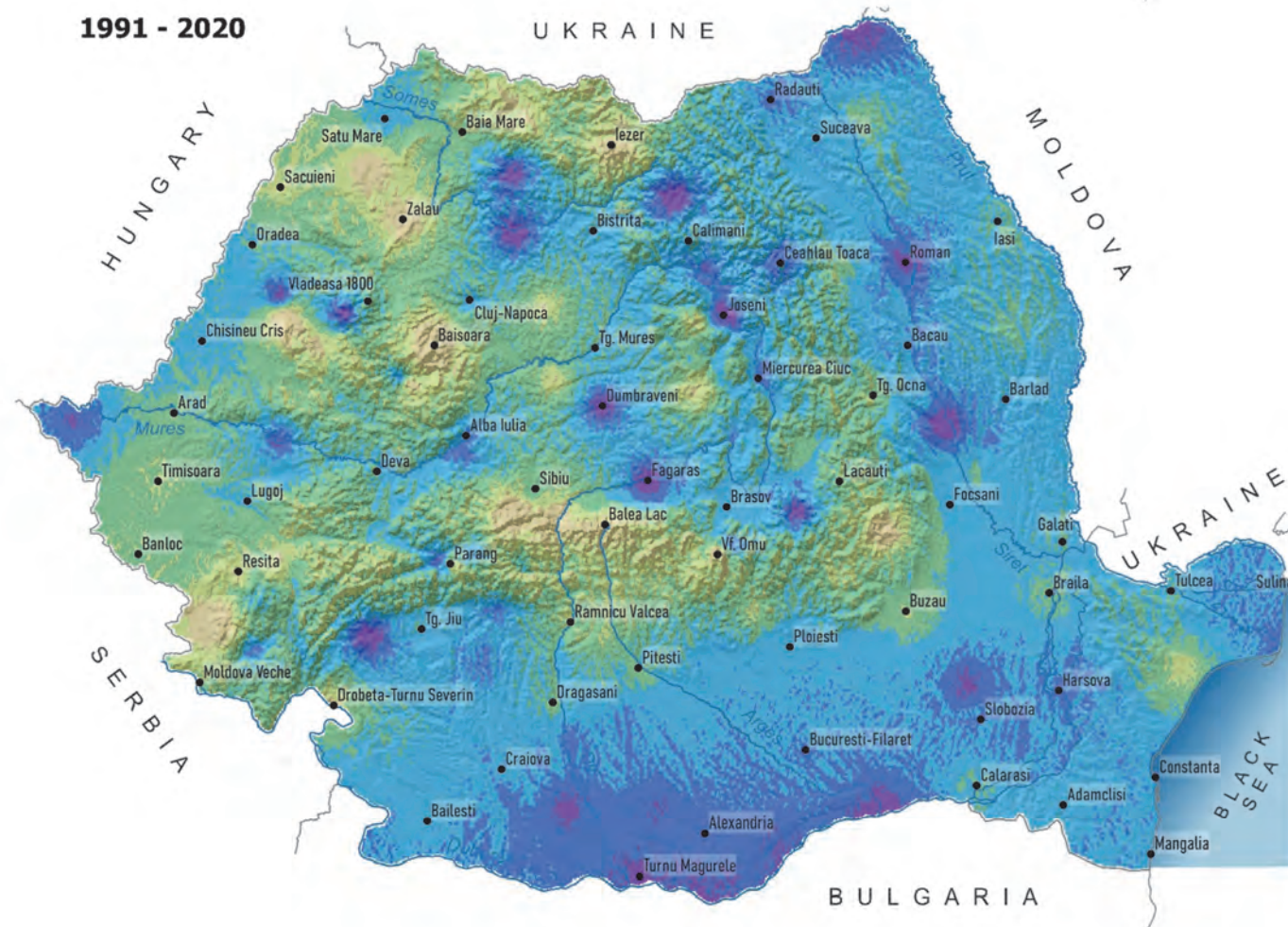


Difference maps

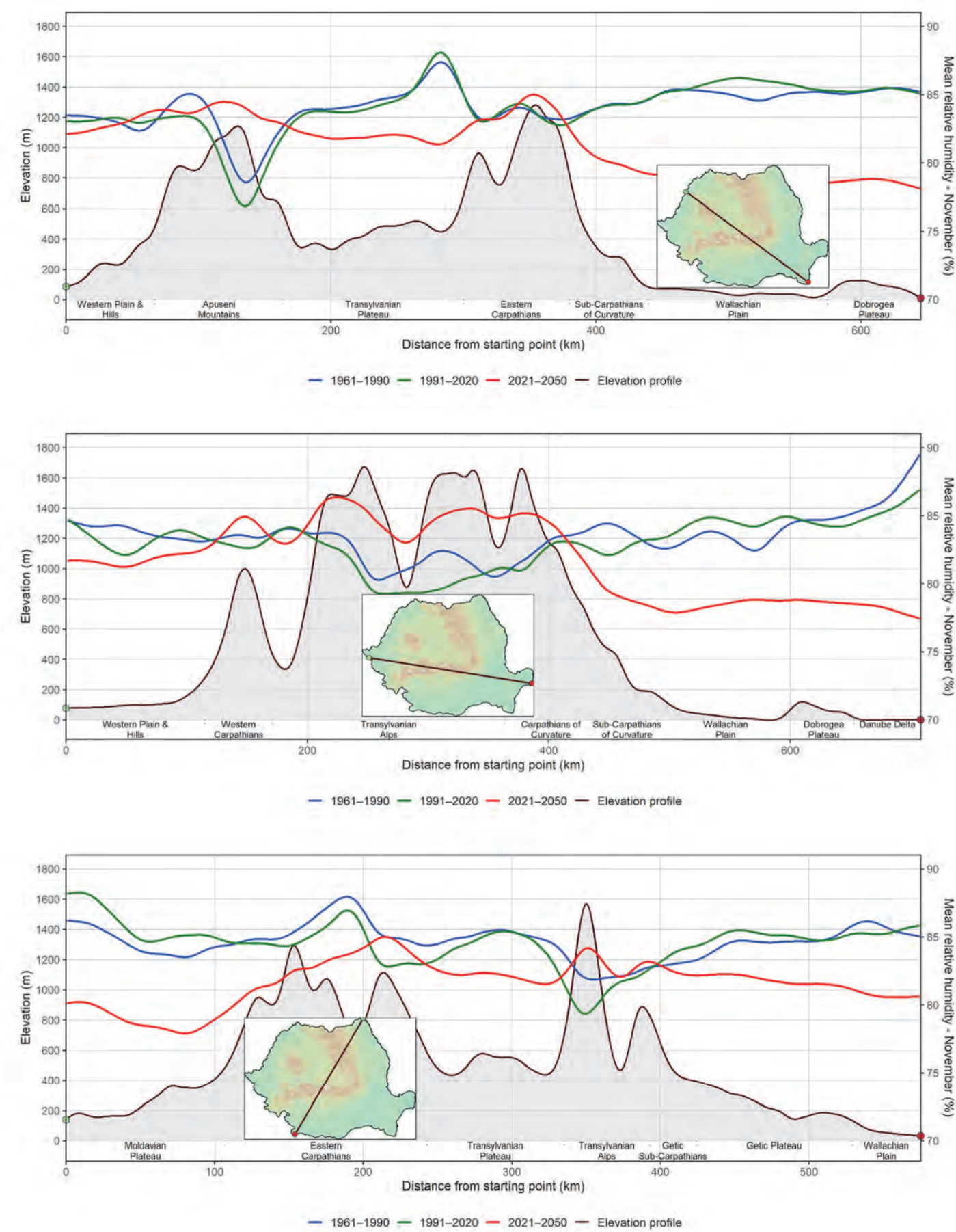




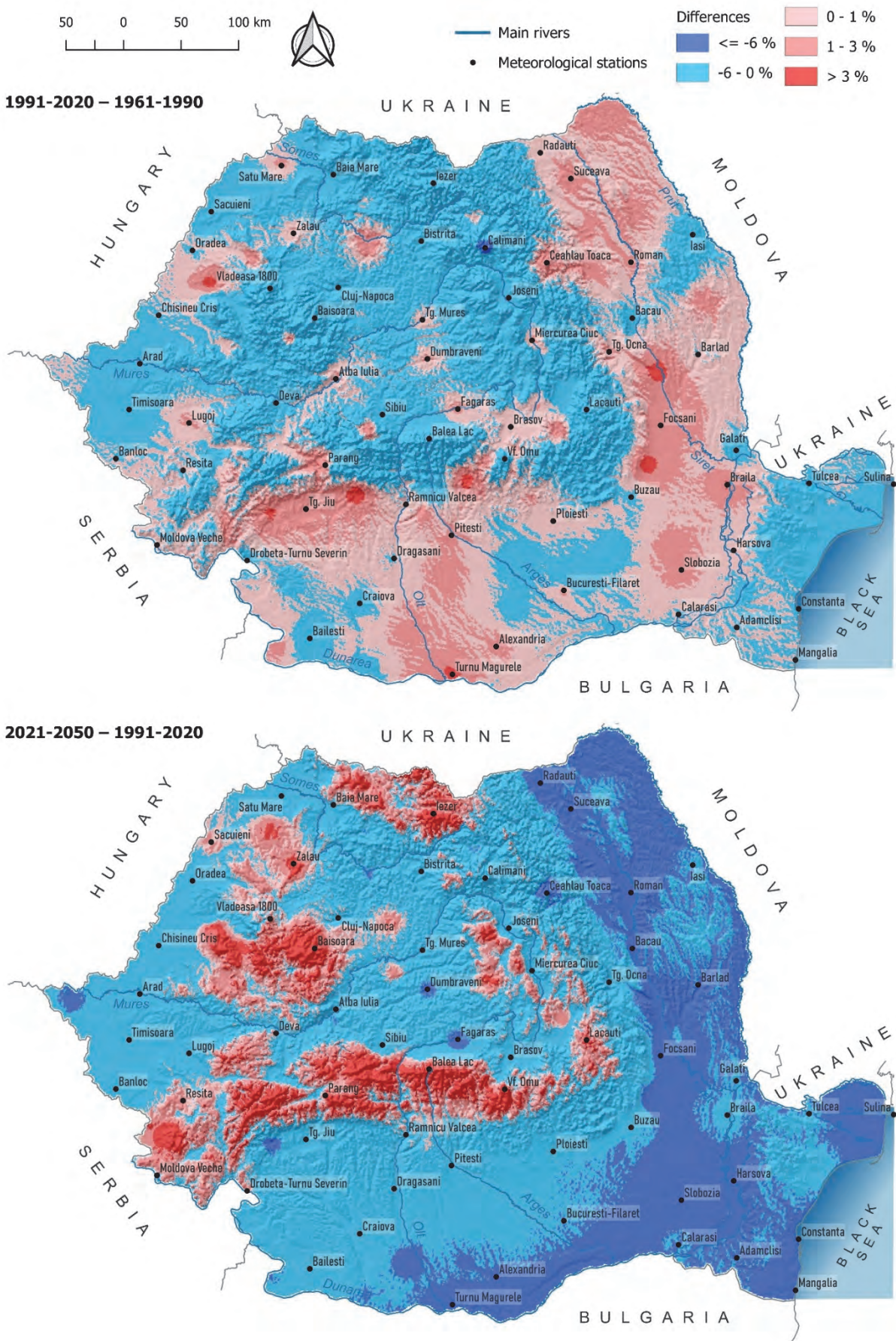
Area (sqkm)		
1961 - 1990	1991 - 2020	2021-2050
2886	3349	291
26281	29732	3958
116945	106382	22532
71214	68873	68354
14245	20502	67802
3366	6100	72001

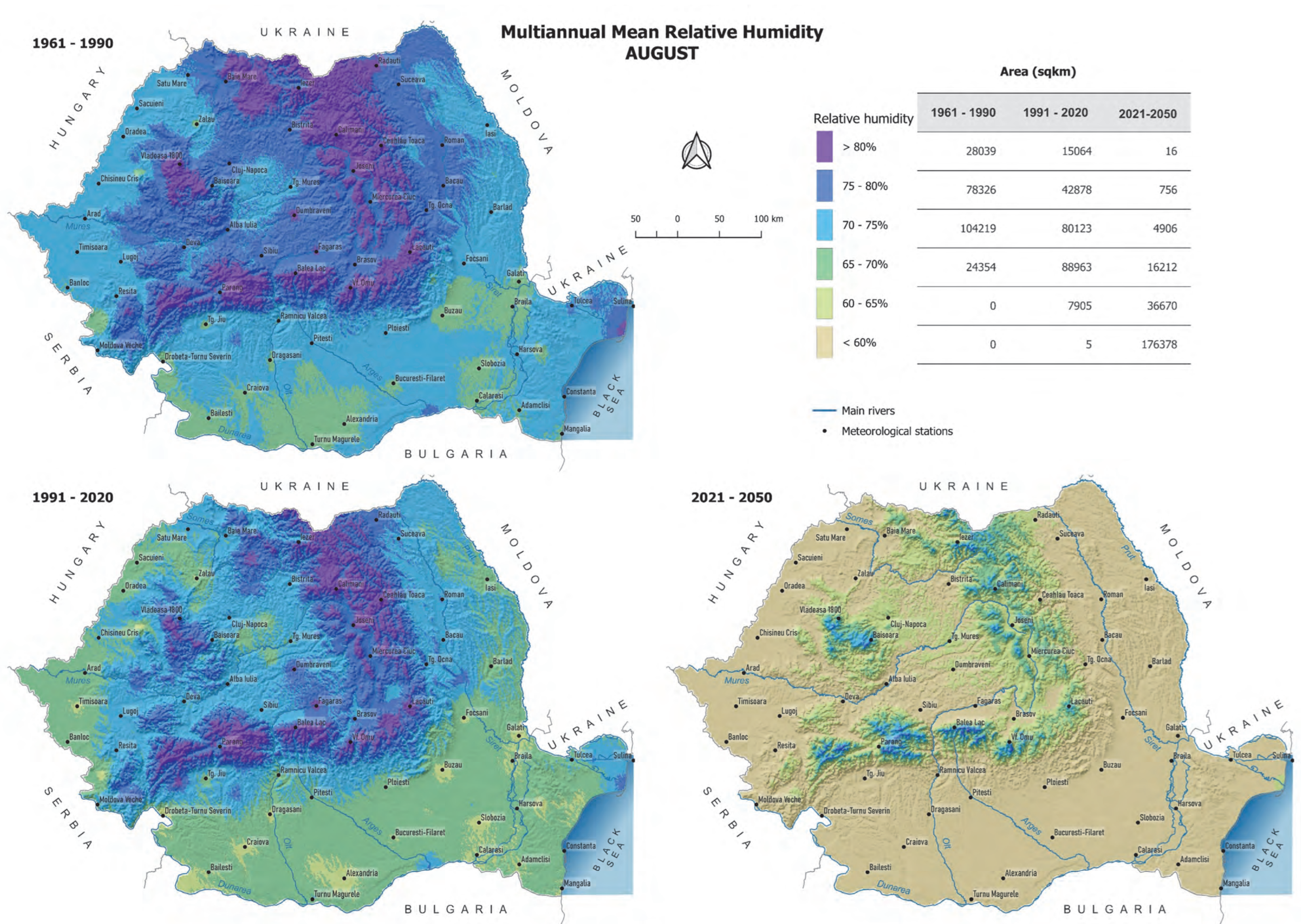


Combined elevation and mean relative humidity profile - November

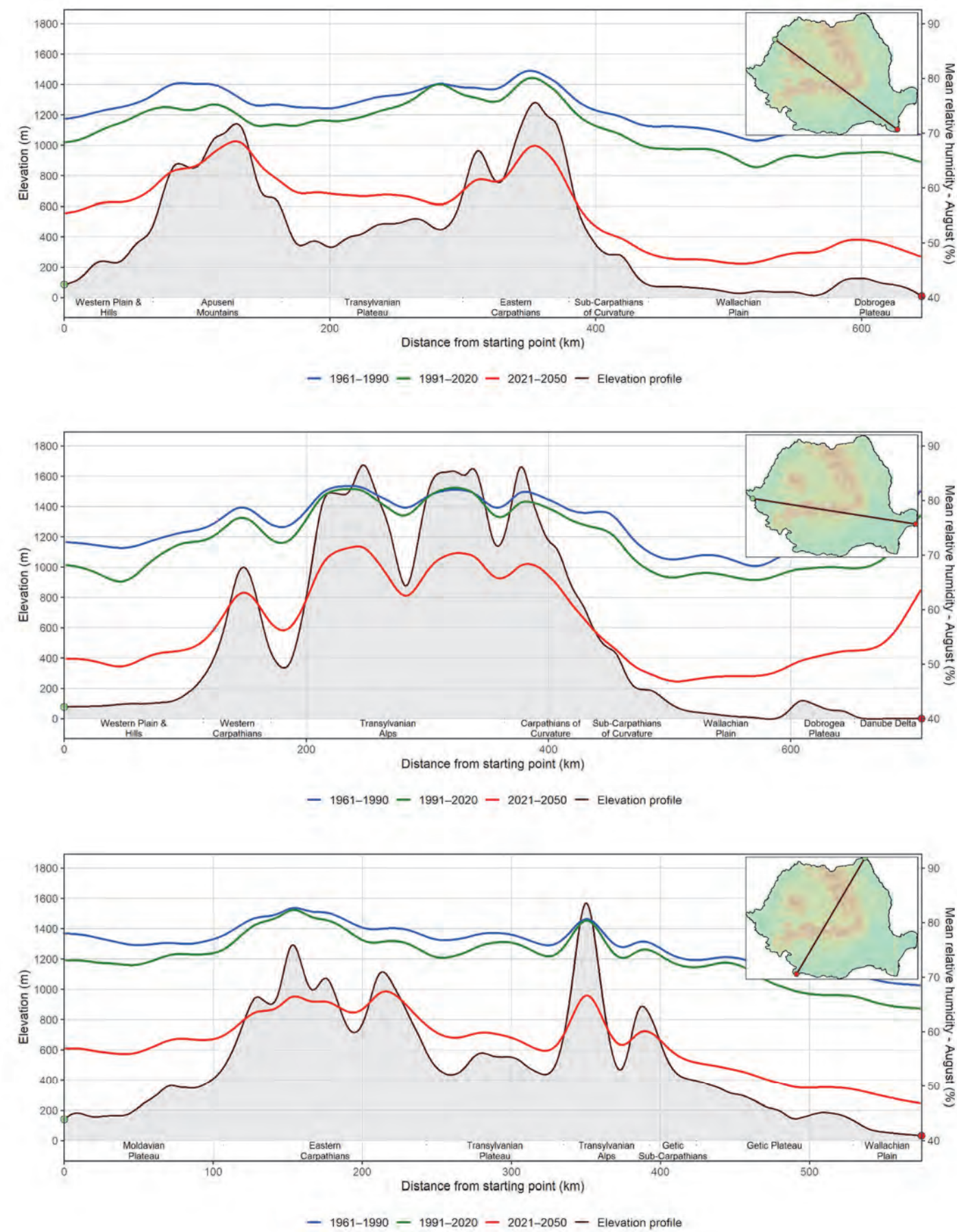


Difference maps

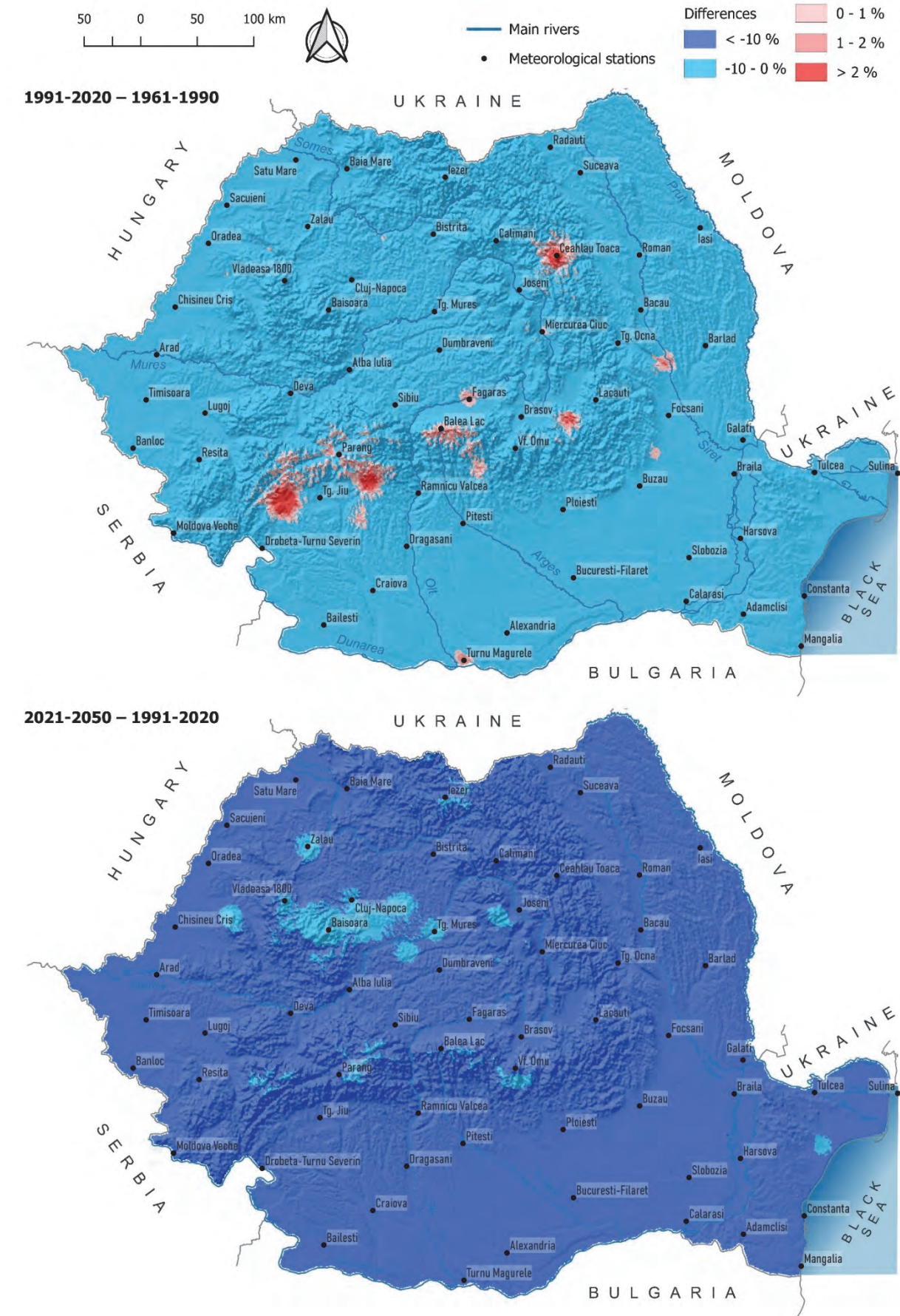


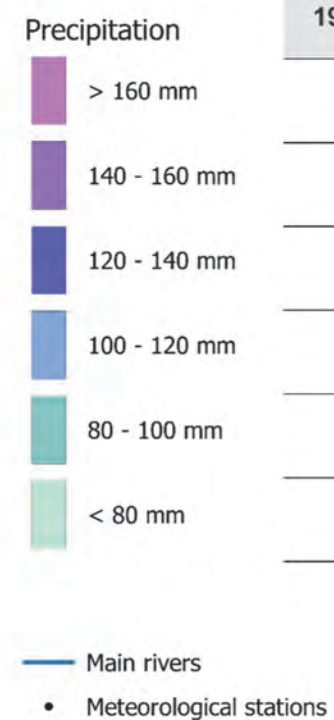
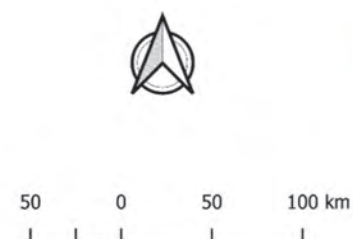
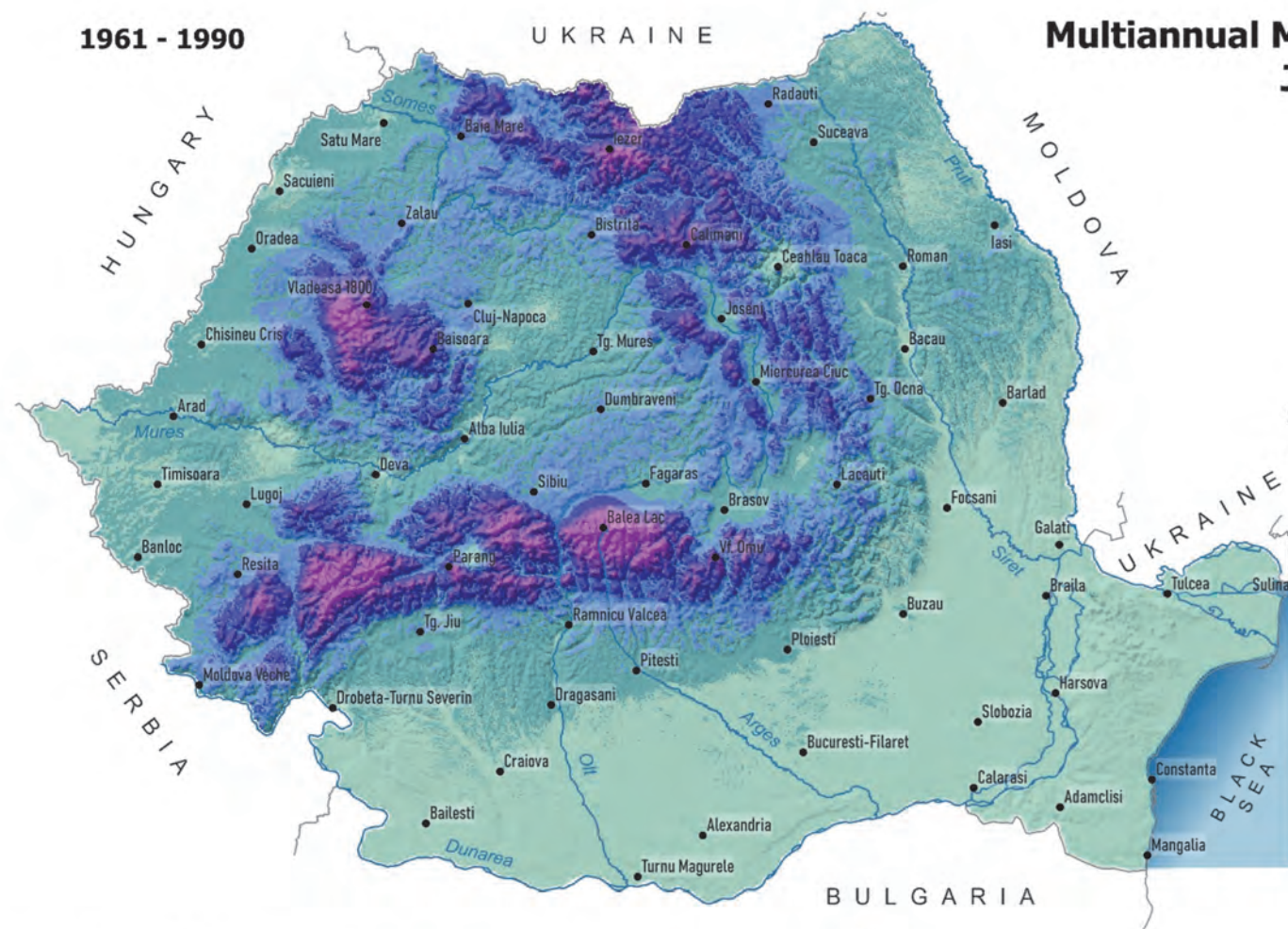


Combined elevation and mean relative humidity profile - August

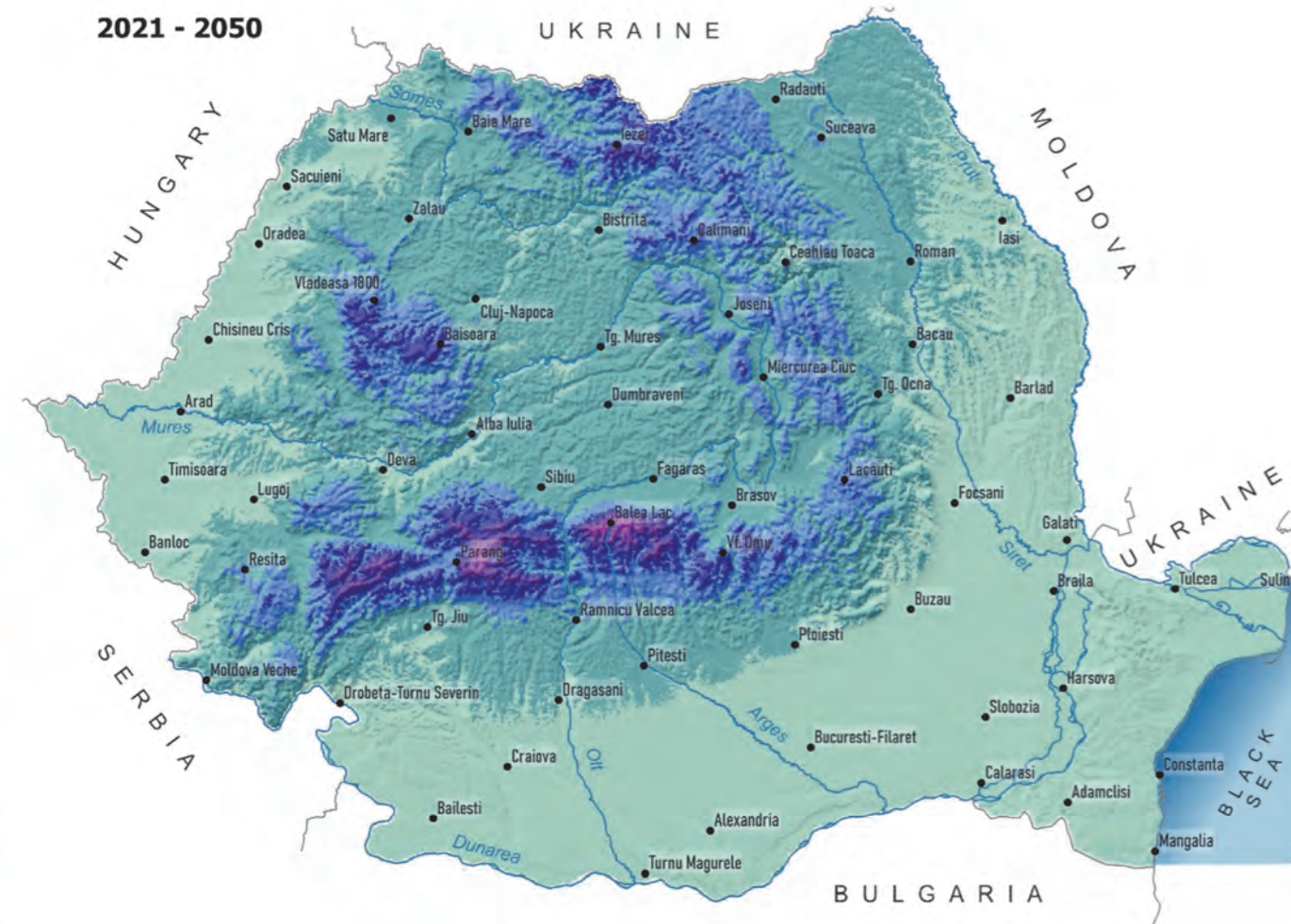


Difference maps

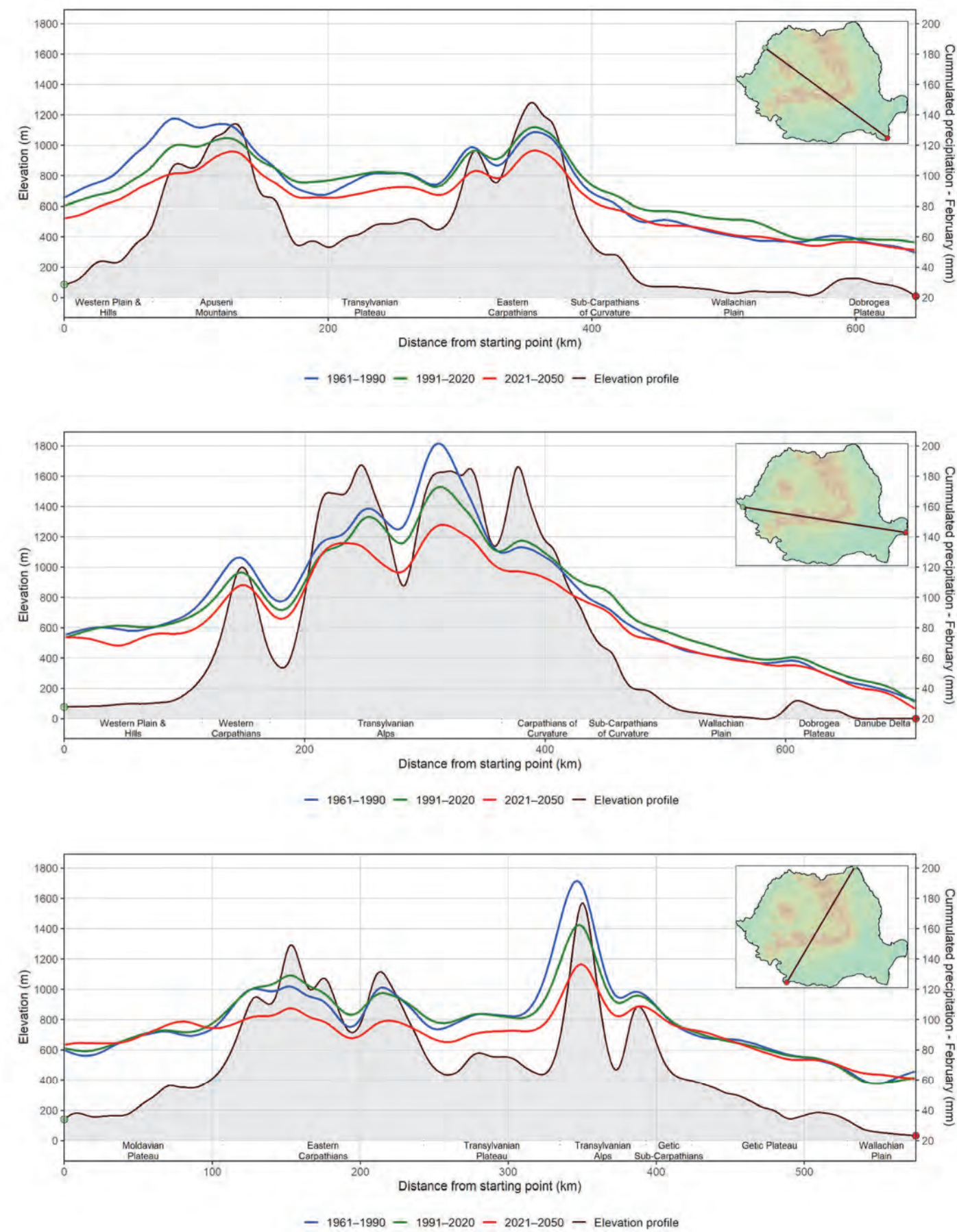




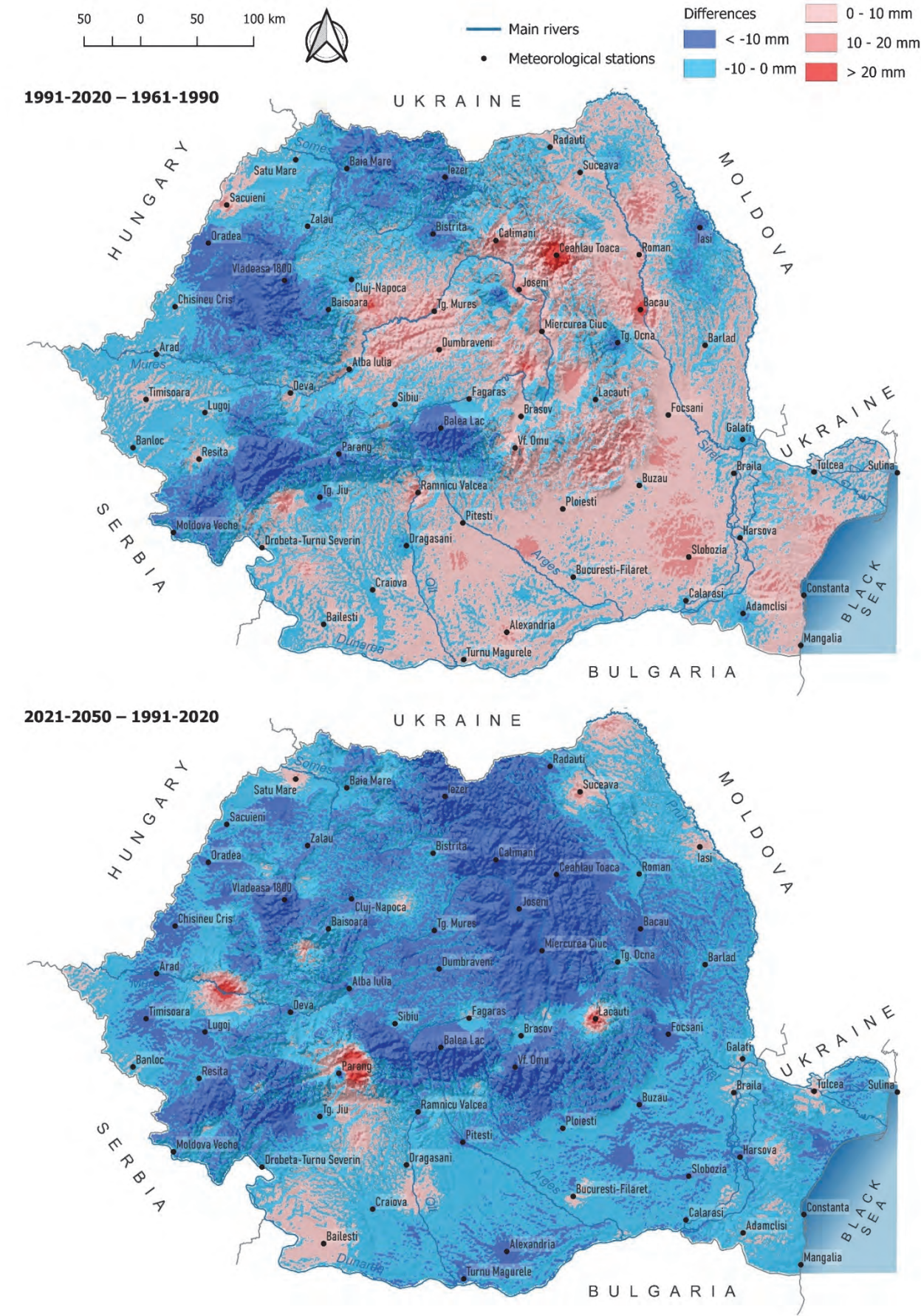
Area (sqkm)		
1961 - 1990	1991 - 2020	2021-2050
4007	1488	365
7732	5016	1947
20691	19613	7392
44804	45408	30263
76612	88466	90024
81092	74947	104947

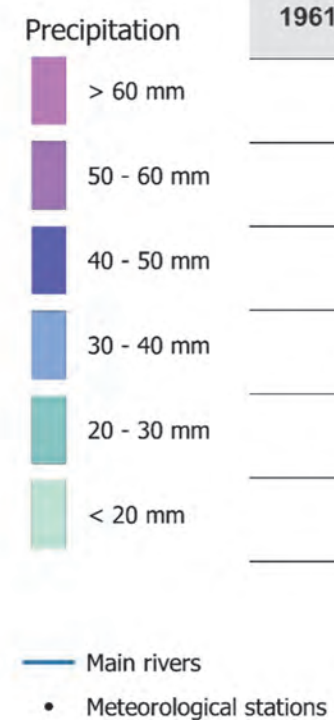
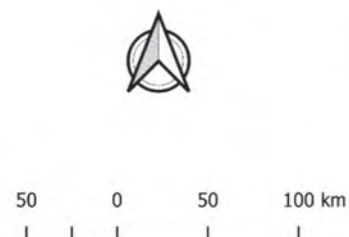
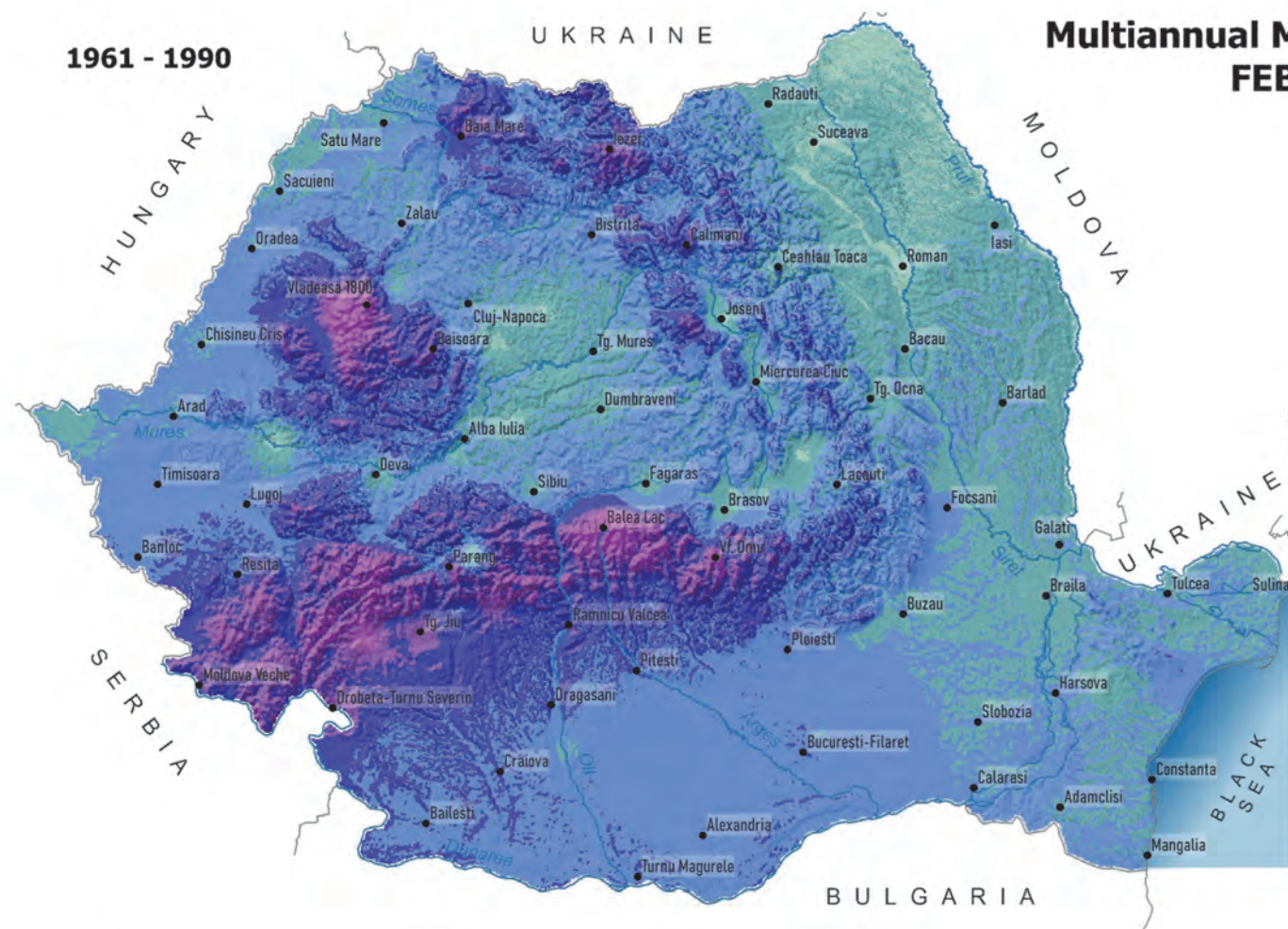


Combined elevation and cumulated precipitation profile - June

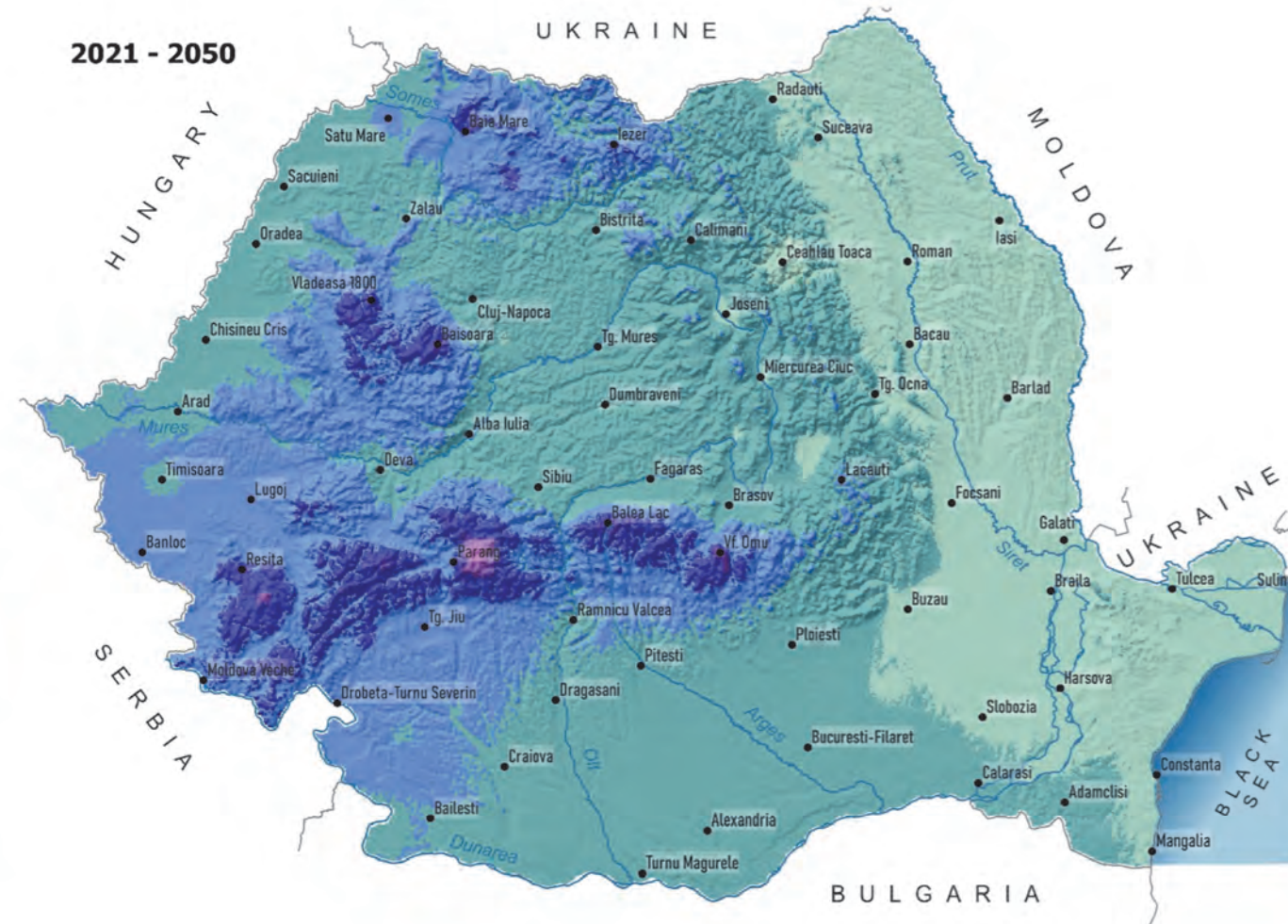
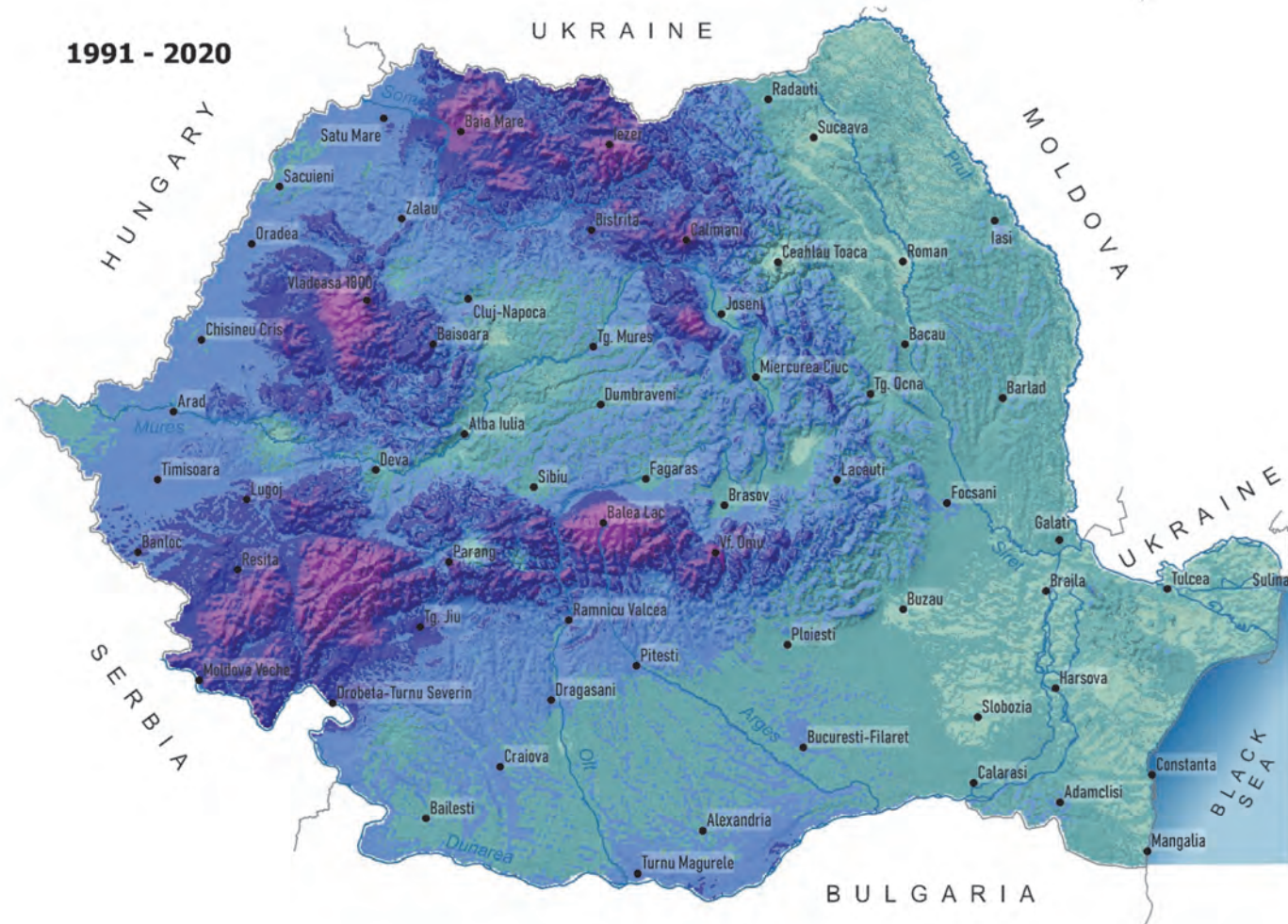


Difference maps

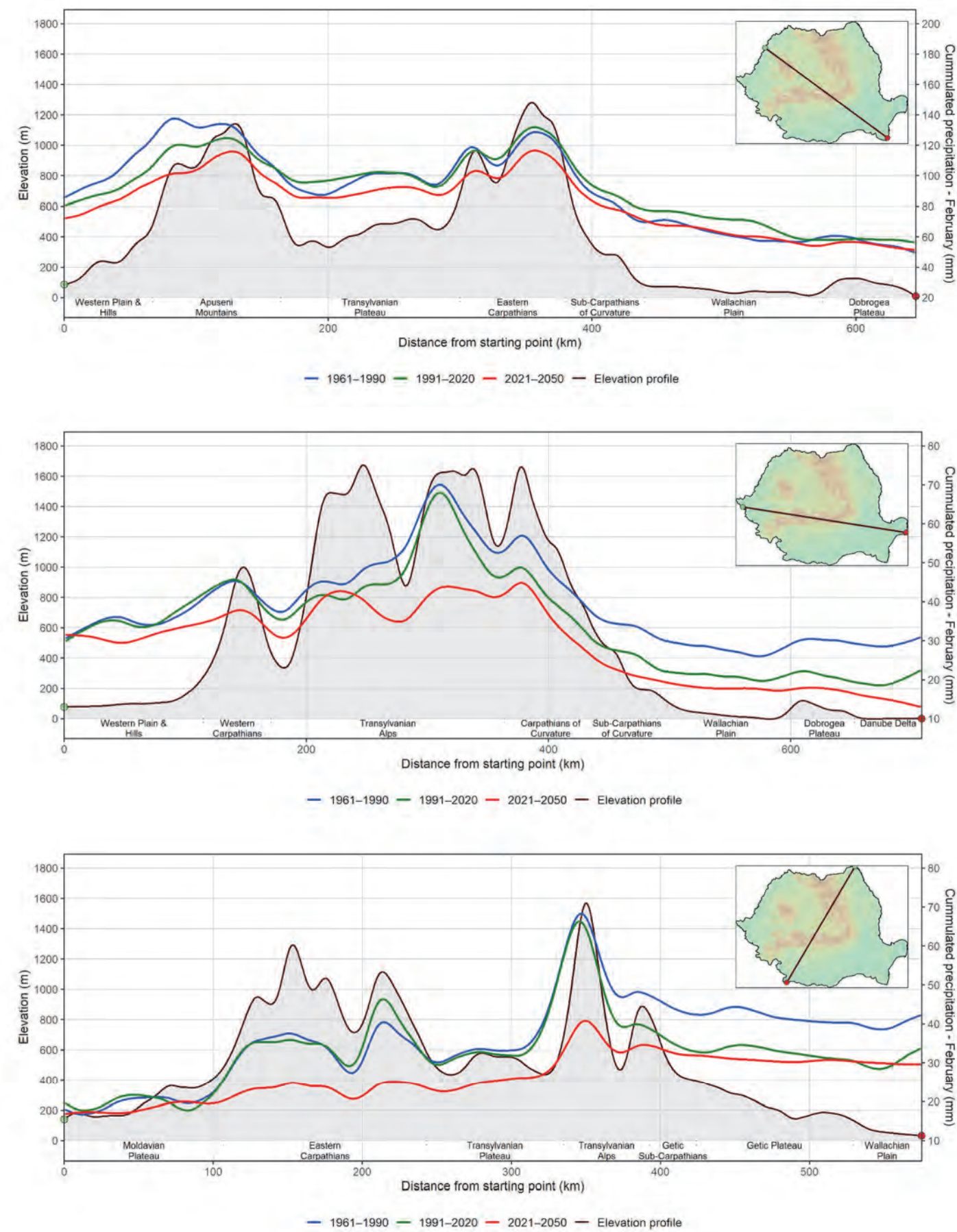




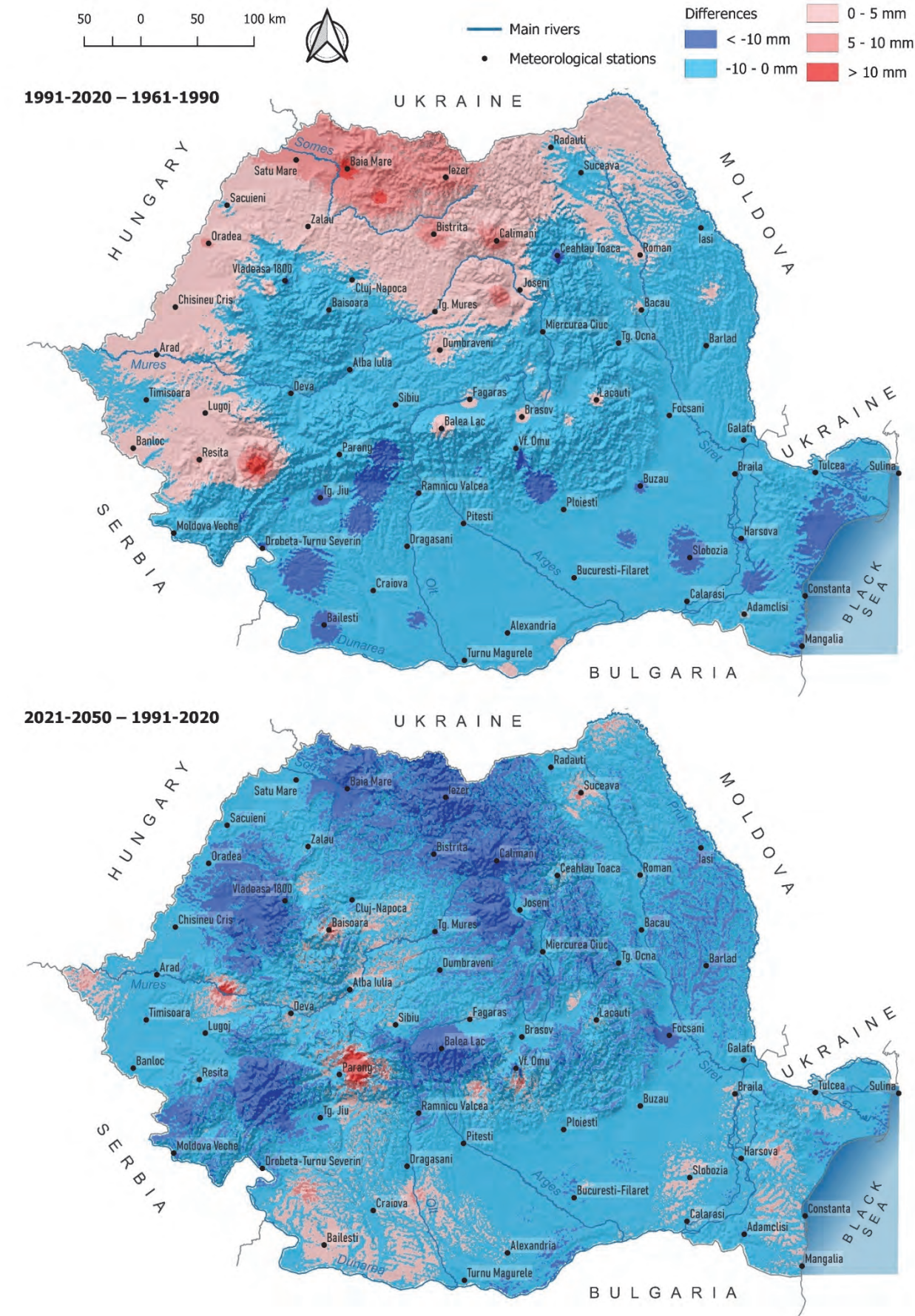
Area (sqkm)			
	1961 - 1990	1991 - 2020	2021-2050
> 60 mm	3847	3159	81
50 - 60 mm	12800	9628	563
40 - 50 mm	42064	33353	10723
30 - 40 mm	113364	81565	55892
20 - 30 mm	58164	91813	111072
< 20 mm	4699	15420	56607

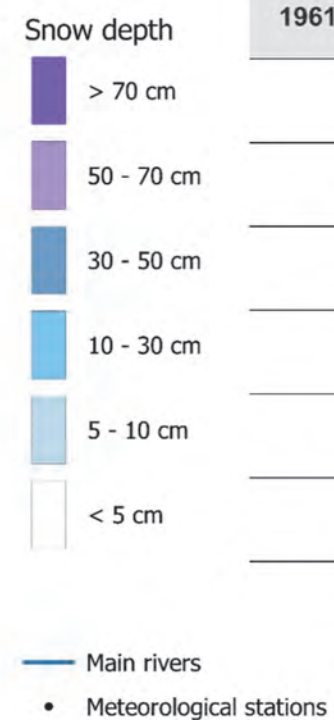
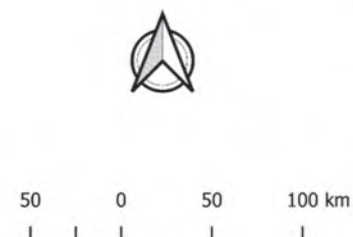
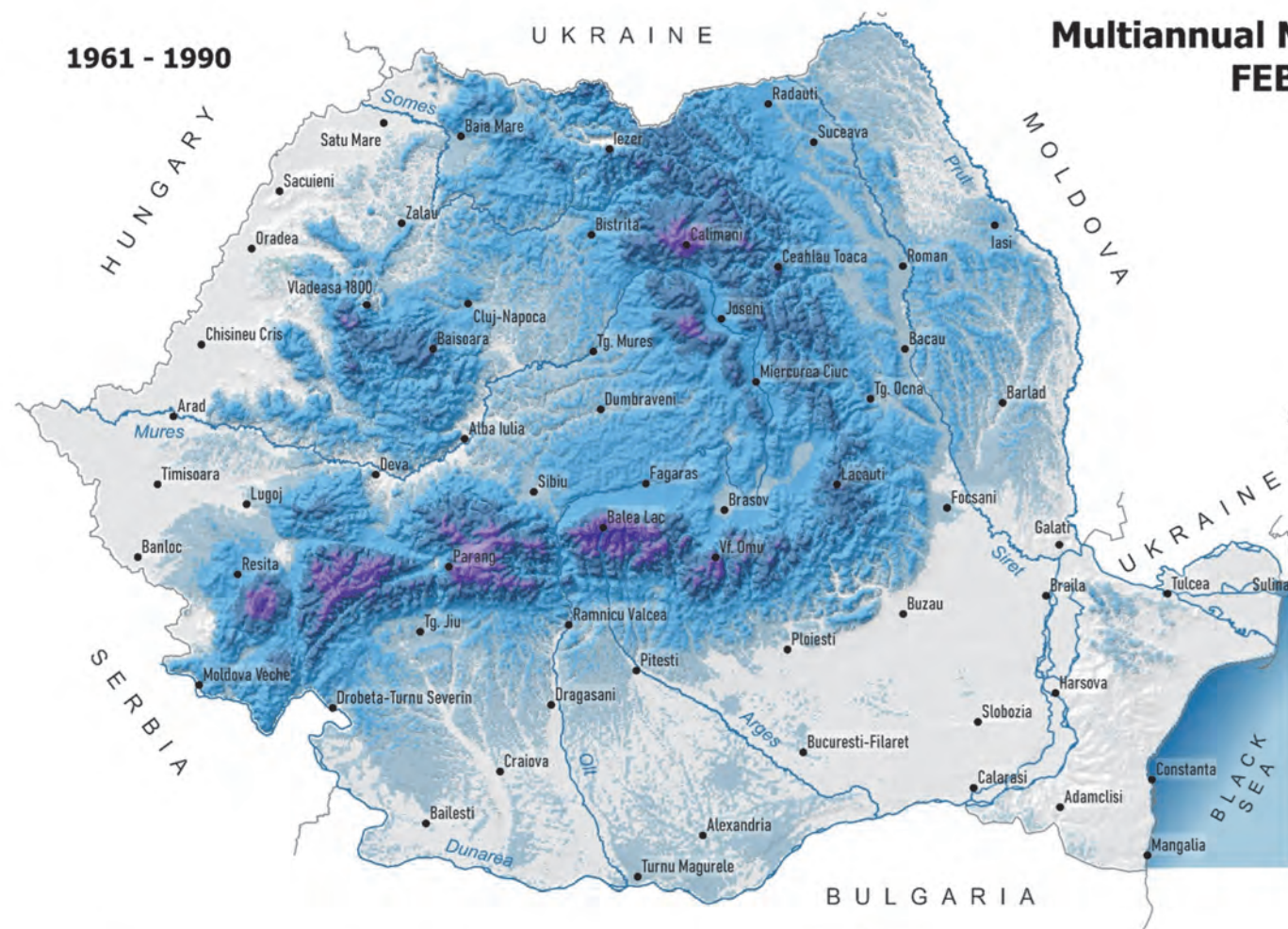


Combined elevation and cummulated precipitation profile - February

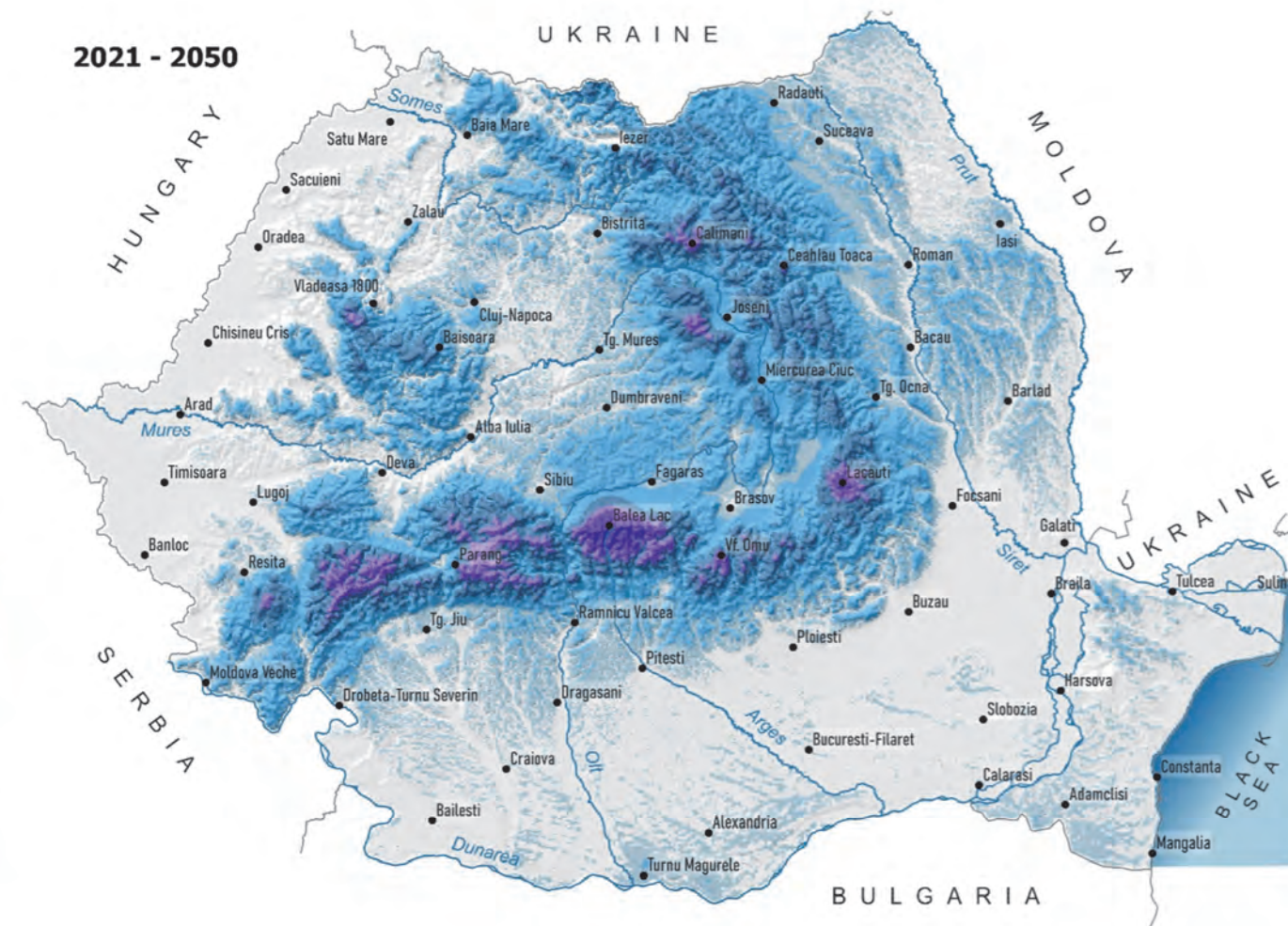


Difference maps

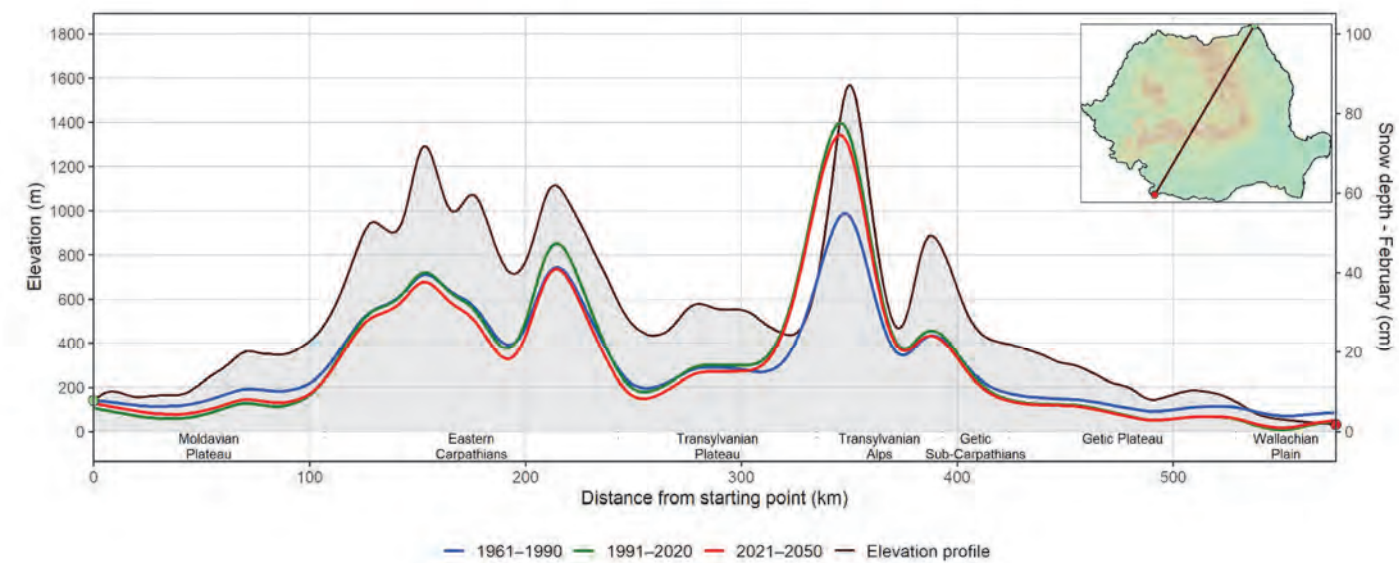
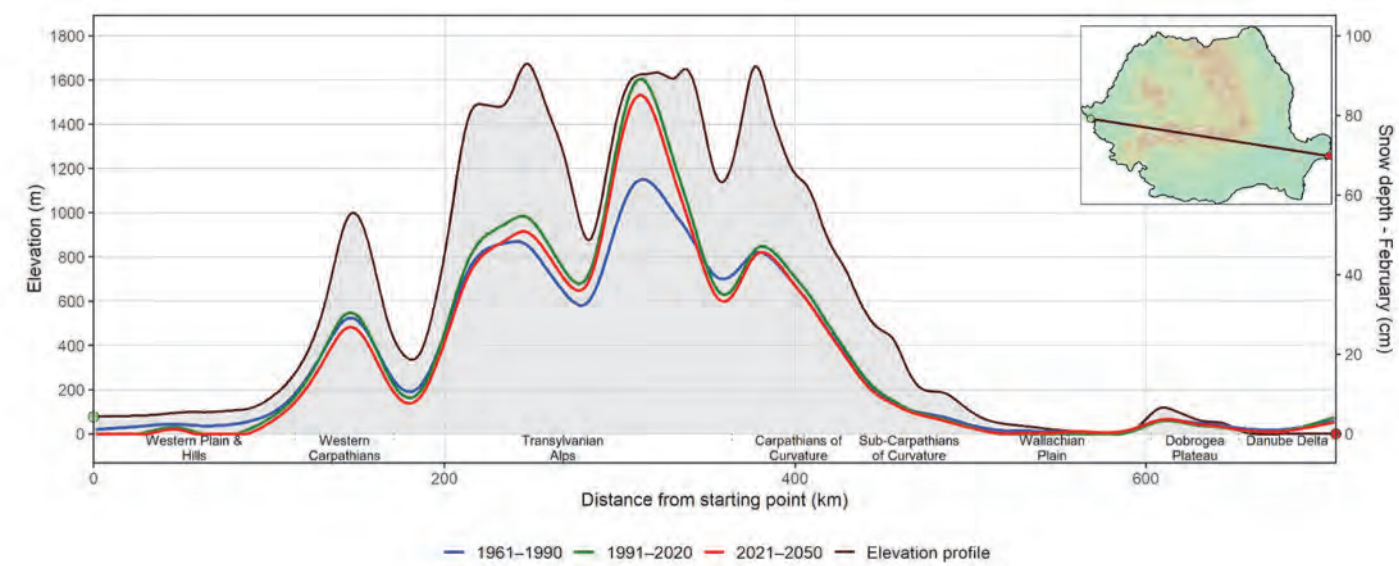
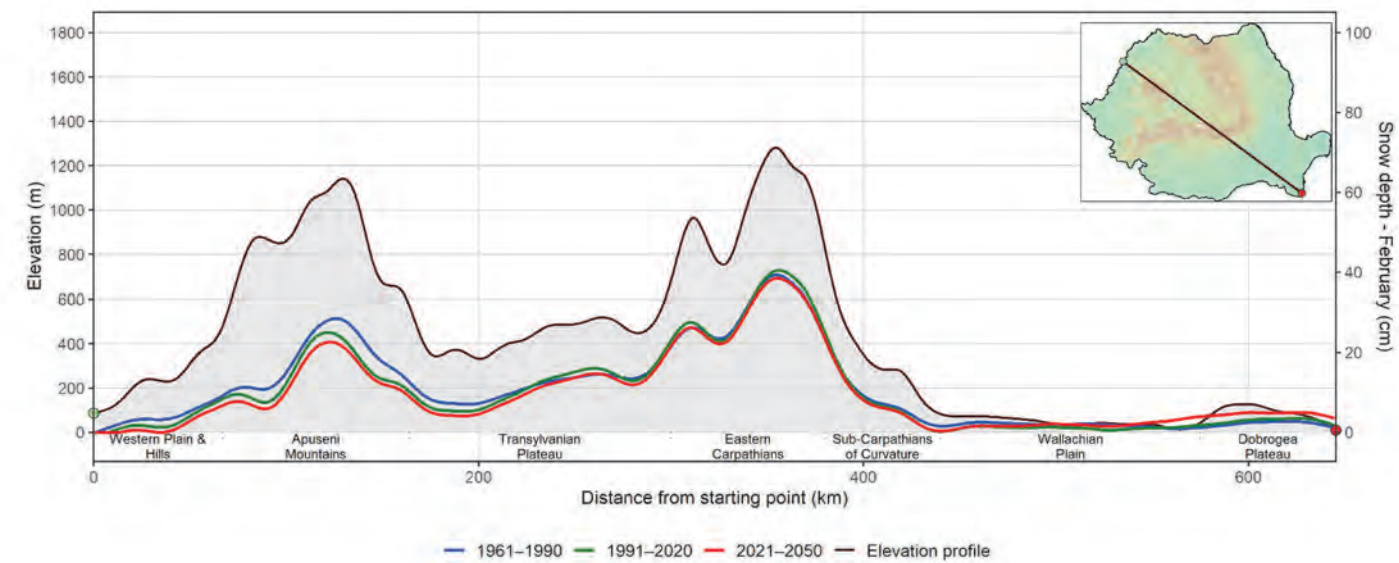




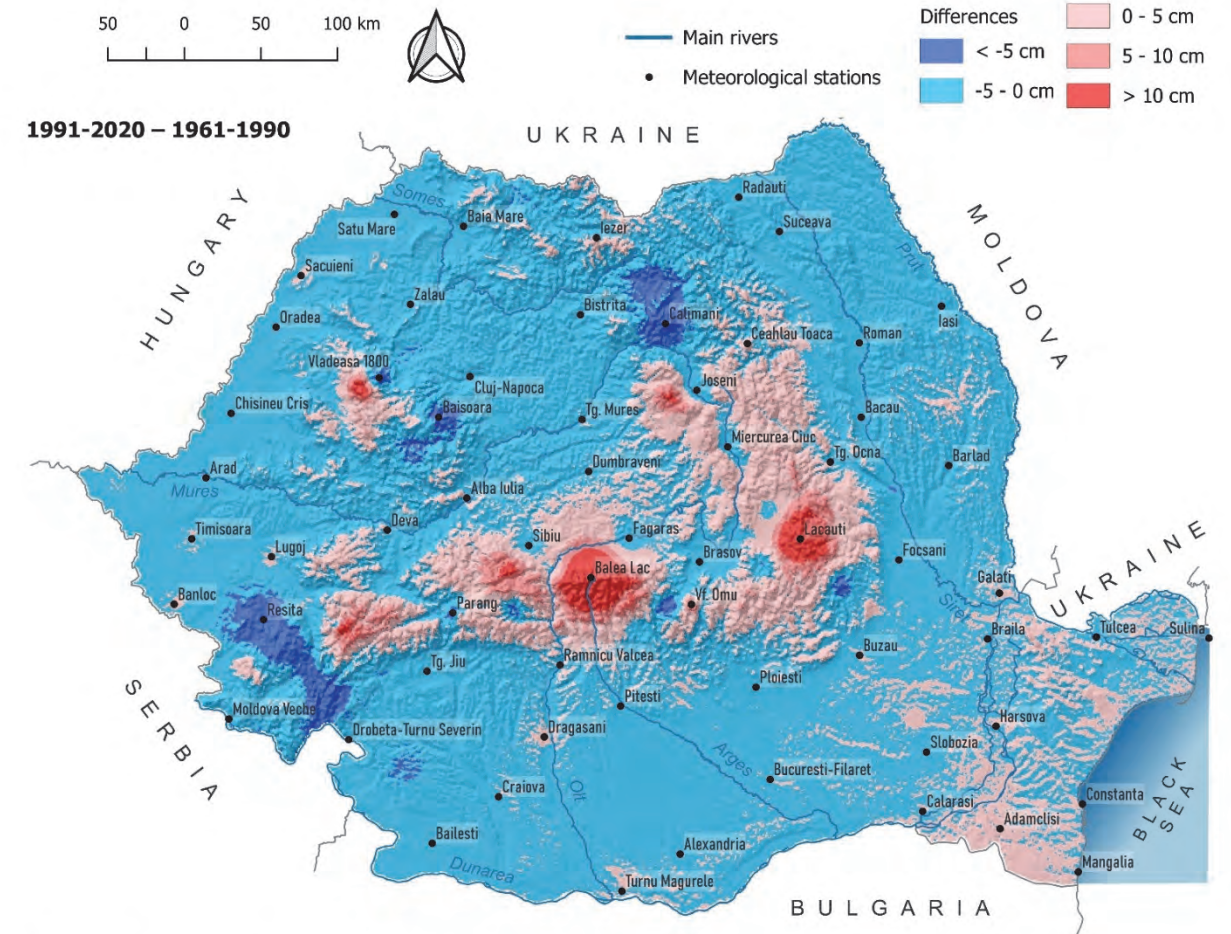
Area (sqkm)		
1961 - 1990	1991 - 2020	2021-2050
589	1431	934
3599	4366	3411
20596	19579	16778
70019	57289	54966
58401	47336	50021
81734	104937	108828

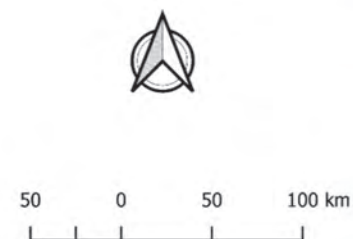


Combined elevation and cummulated snow depth profile - February



Difference maps





Snow depth

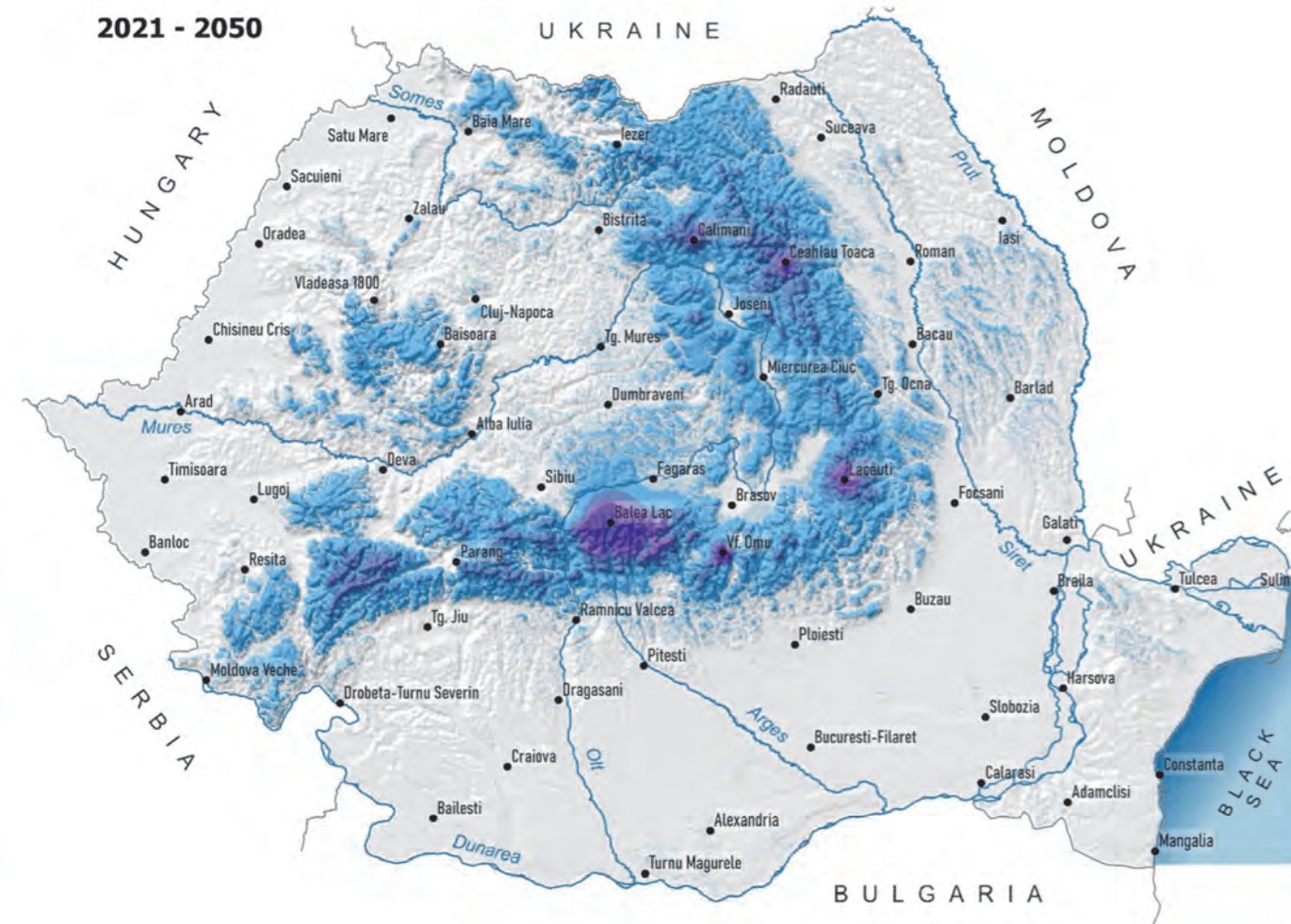


— Main rivers

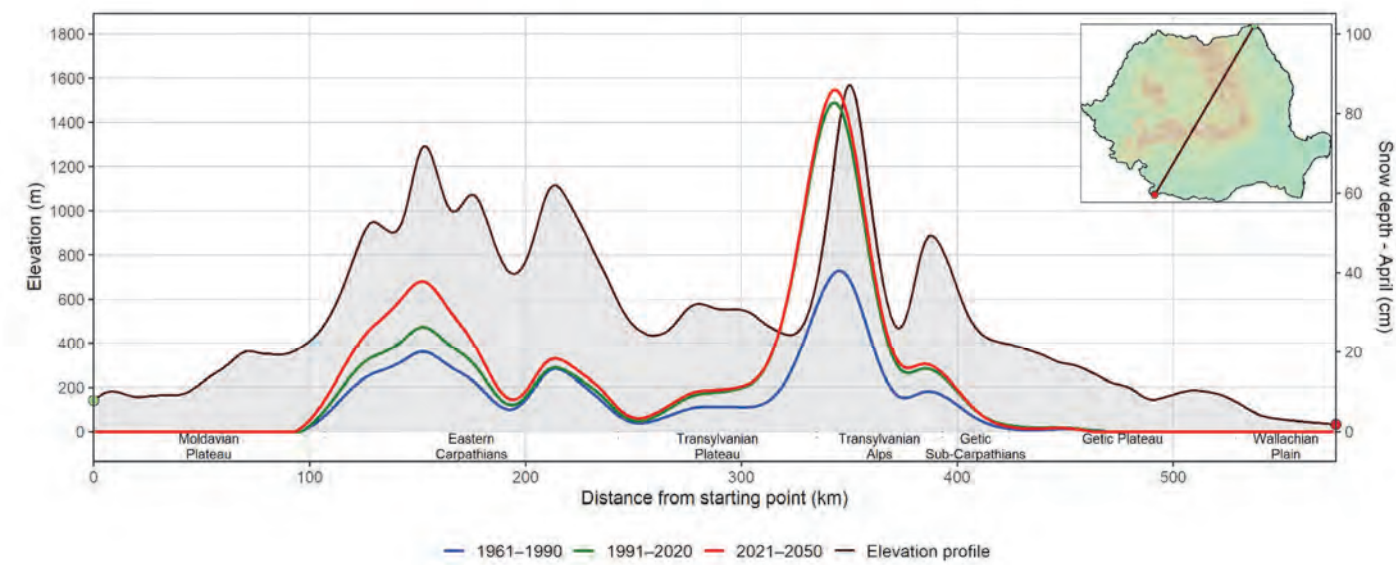
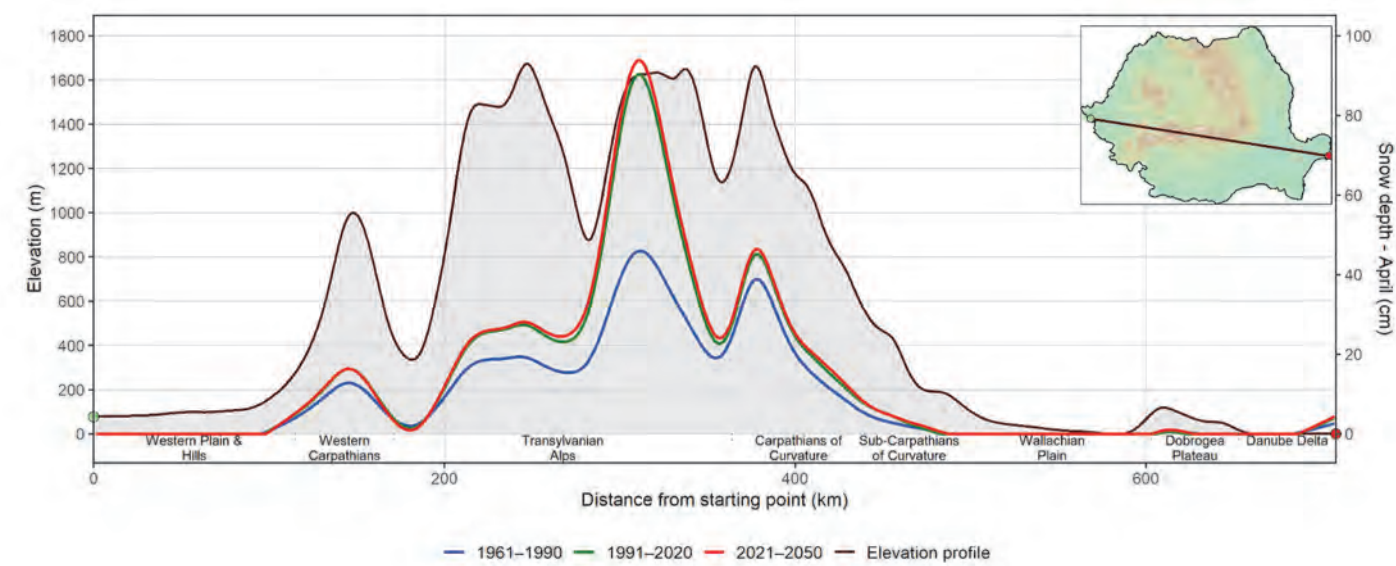
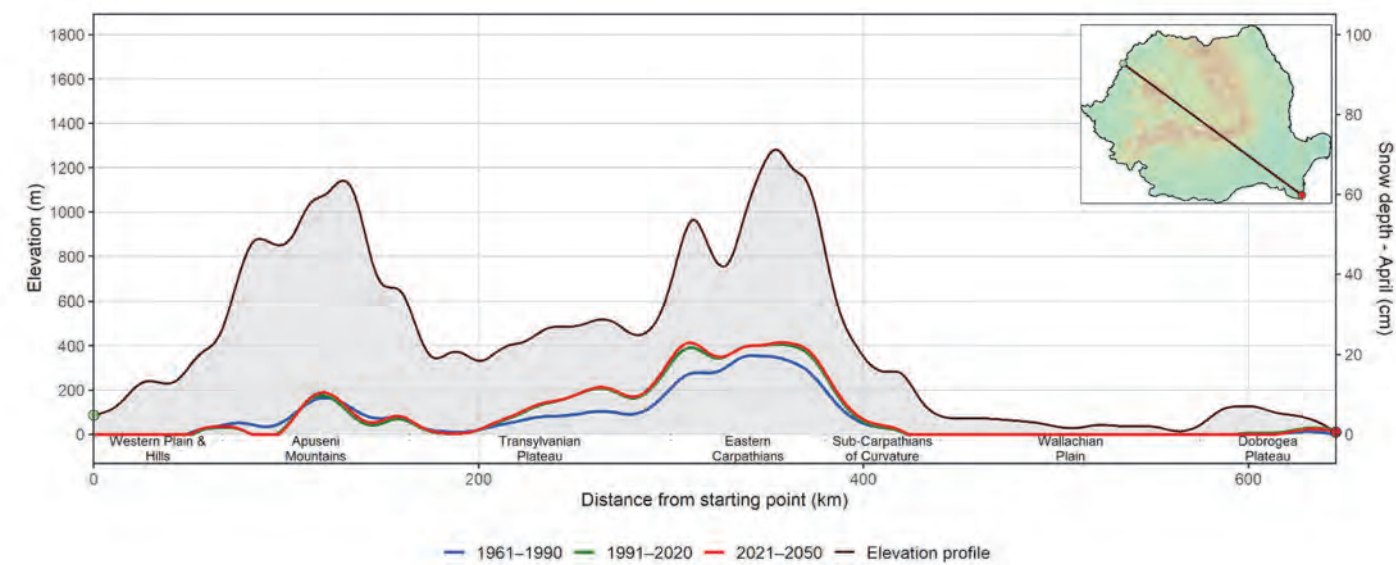
• Meteorological stations

Area (sqkm)

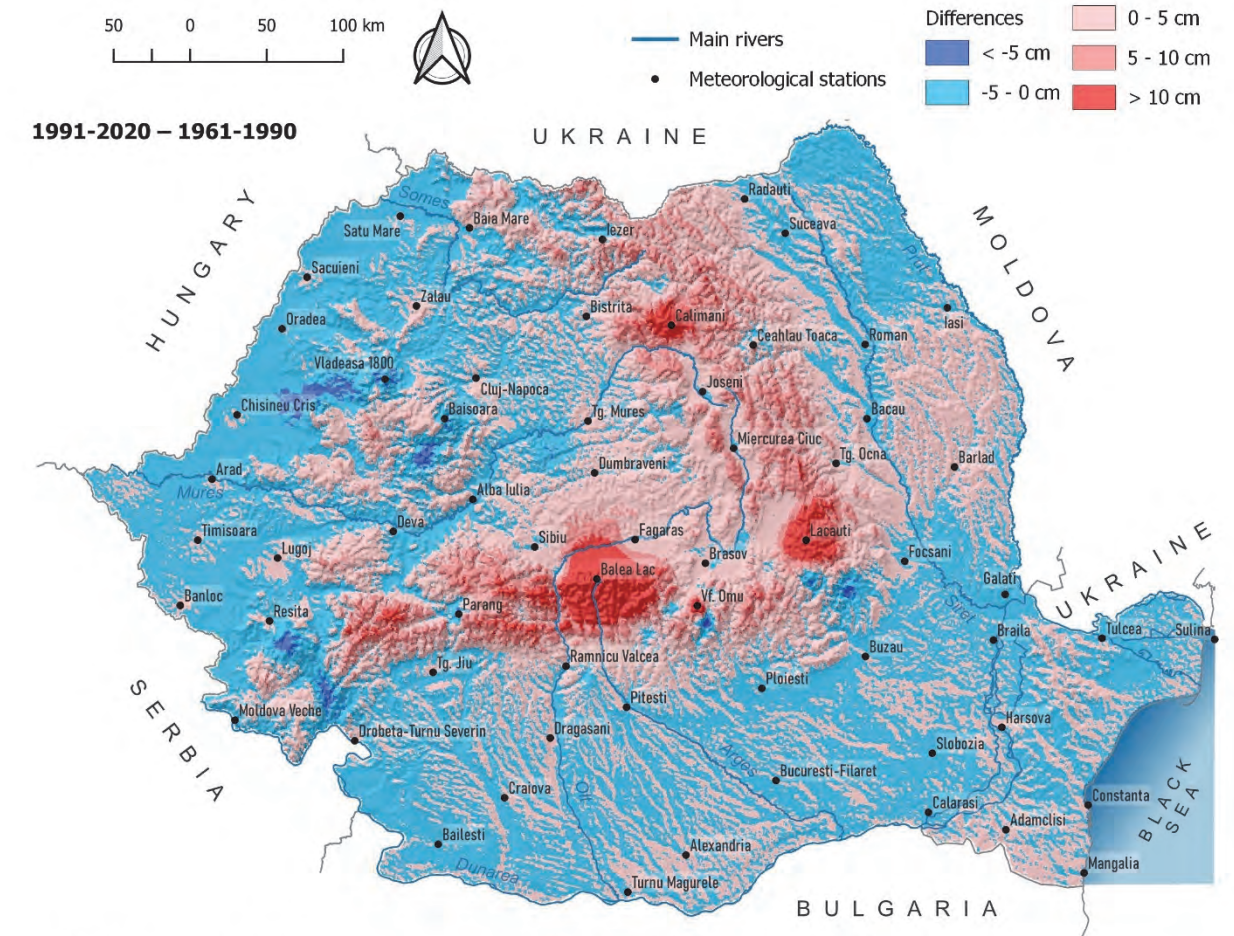
	1961 - 1990	1991 - 2020	2021-2050
> 70 cm	124	743	854
50 - 70 cm	308	843	1146
30 - 50 cm	1536	4830	7500
10 - 30 cm	32497	38340	39166
5 - 10 cm	27067	26629	27390
< 5 cm	173406	163553	158882

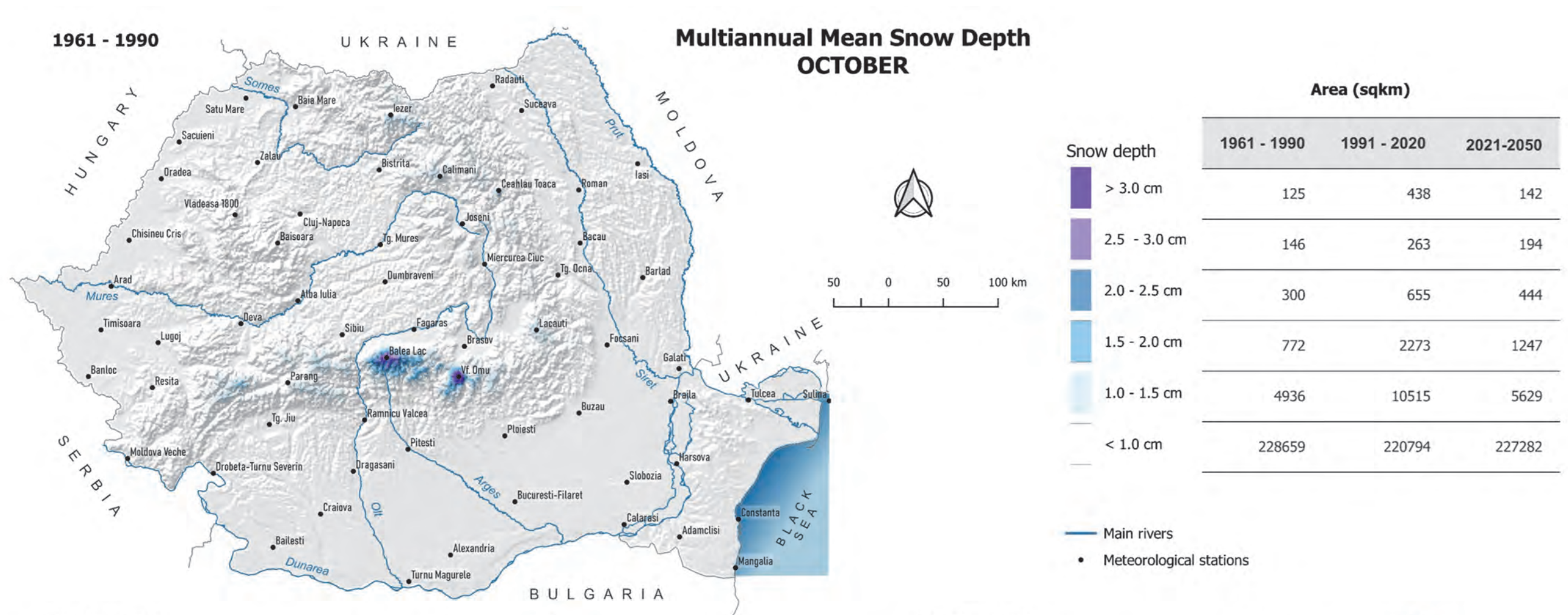


Combined elevation and cumulated snow depth profile - April

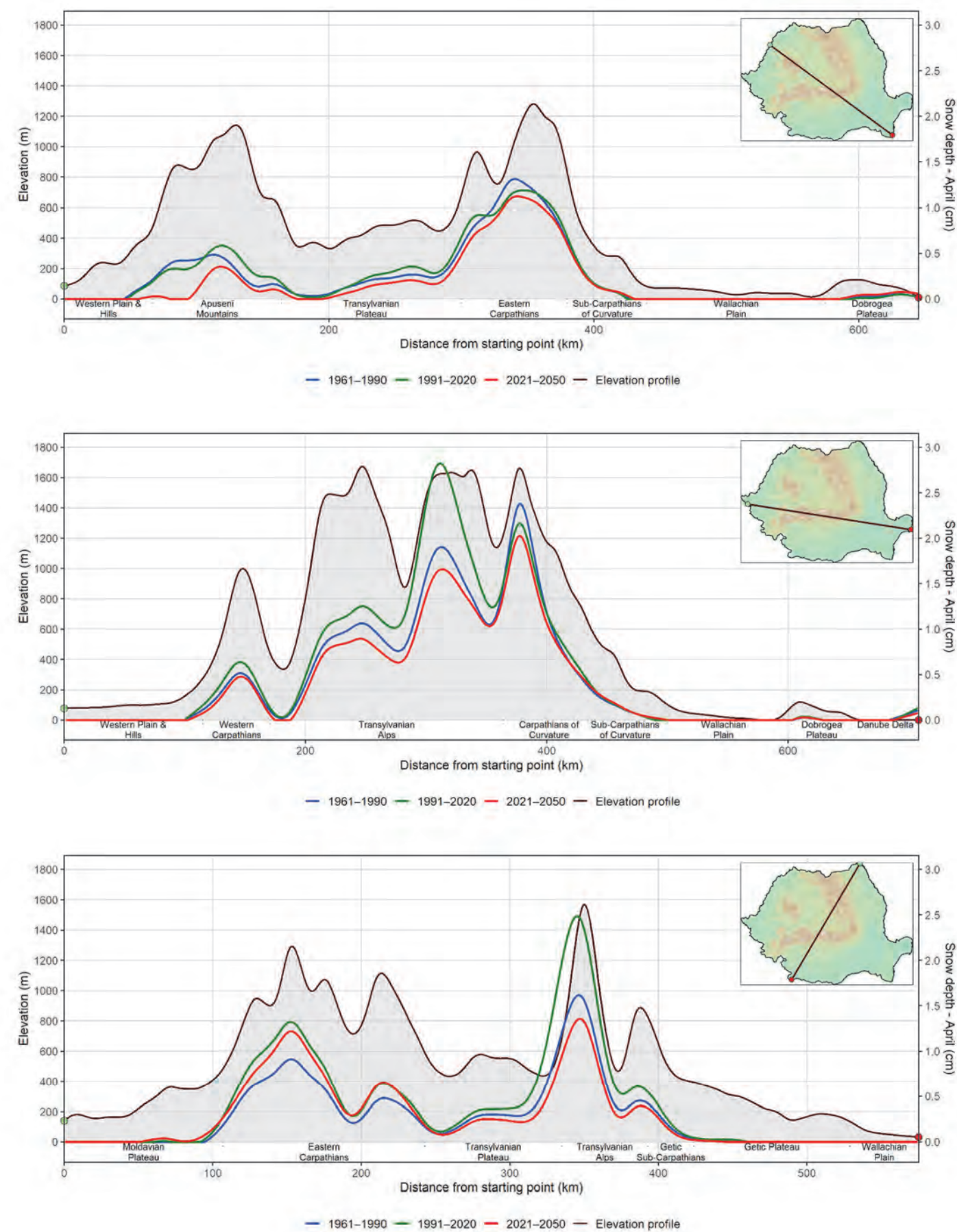


Difference maps

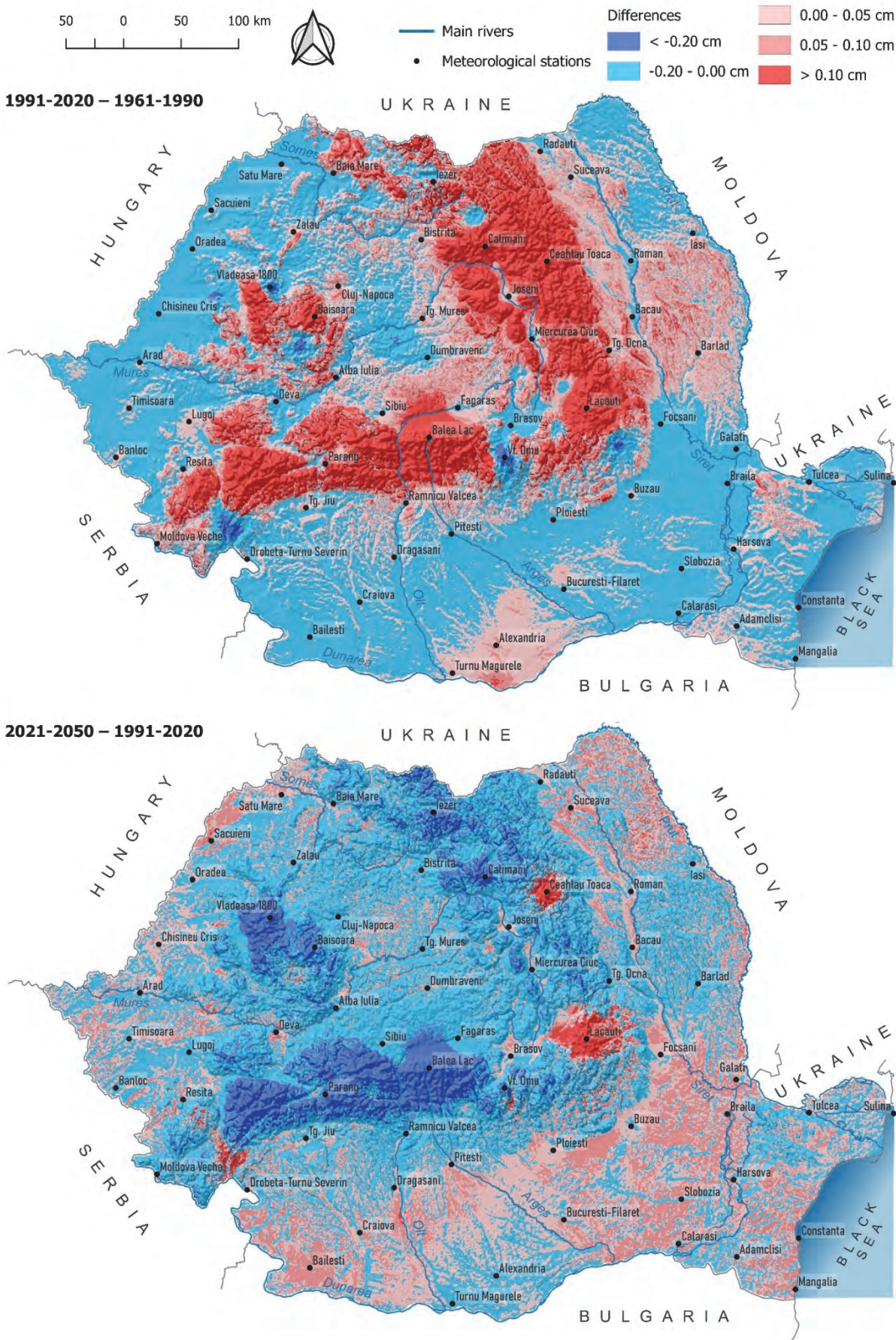




Combined elevation and cummulated snow depth profile - October



Difference maps



EXPLANATION

The main cartographic source consists of maps for the maximum and minimum months of each climatic parameter for the periods 1961-1990, 1991-2020, and 2021-2050, tables showing the areas of legend classes, combined climate-parameter-altitude profiles, and maps of differences between periods.

For temperature, the months analyzed are July and January; for cloudiness, December and August; for sunshine duration, July and December; for pressure, April and October; for wind, March and August; for relative humidity, November and August; for precipitation, June and February; and for snow cover, February, October, and April. The 2021-2050 period is treated as an RCP4.5 / CORDEX - ALADIN climate projection, not as an observed normal.

The interpretation of the changes is based on three elements: the displacement of areas between legend classes, the difference maps 1991-2020 minus 1961-1990 and 2021-2050 minus 1991-2020, and the combined parameter-altitude profiles.

For a synthetic comparison of the parameters, an indicative redistribution index between classes was calculated: half of the sum of the absolute changes in class areas, divided by the total map area. The indicator does not represent a pixel-by-pixel change, but rather the intensity of the movement of areas between legend classes. High values indicate that a large part of the national territory shifts into other climatic classes between 1961-1990 and 2021-2050.

The largest changes occur for relative humidity and wind speed. Relative humidity provides the most coherent climatic signal: a massive decrease in August and an important reduction in November. Wind shows a very large numerical redistribution, but it is also the parameter most sensitive to model resolution and parameterizations, and must therefore be checked carefully against station data and the climate products used.

Table 2. Area redistribution index by climatic significance

Parameter	Redistribution 1961-1990 - > 2021-2050	Climatic significance
Relative humidity	≈71%	largest change; strong aridization, especially in August
Wind speed	≈57%	very large redistribution in the projection; cautious interpretation is required because of the sensitivity of wind modeling
Minimum temperature	≈45%	strong warming of nights, reduction of frost and of cool summer nights
Mean temperature	≈40%	general warming, especially in winter
Maximum temperature	≈36%	increase in summer maxima and positive winter maxima
Precipitation	≈30%	drying in June and February; contraction of wet classes
Sunshine duration	≈27%	increase in sunshine, especially in summer and in December
Cloudiness	≈20%	moderate decrease in cloudiness, clearer in August
Atmospheric pressure	≈10%	limited changes; dominant altitudinal control
Snow cover	≈6%	small national areal change, but altitudinally important in the Carpathians

Legend for Table 2. The total redistribution index between 1961–1990 and 2021–2050 represents the direct comparison between the class distribution of the 1961–1990 reference period and the class distribution of the 2021–2050 projection. The index does not indicate an annual redistribution, nor does it represent the sum of the changes from 1961–1990 → 1991–2020 and 1991–2020 → 2021–2050.

EXPLICAȚII

Sursa cartografică principală constă în hărți pentru lunile de maxim și de minim ale fiecărui parametru climatic, pentru perioadele 1961-1990, 1991-2020 și 2021-2050, tabele care prezintă suprafețele claselor de legendă, profile combinate parametrul climatic-altitudine și hărți ale diferențelor dintre perioade.

Pentru temperatură, lunile analizate sunt iulie și ianuarie; pentru nebulozitate, decembrie și august; pentru durata de strălucire a Soarelui, iulie și decembrie; pentru presiune, aprilie și octombrie; pentru vânt, martie și august; pentru umiditatea relativă, noiembrie și august; pentru precipitații, iunie și februarie; iar pentru stratul de zăpadă, februarie, octombrie și aprilie. Perioada 2021-2050 este tratată ca proiecție climatică RCP4.5 / CORDEX - ALADIN, nu ca normală observată.

Interpretarea schimbărilor se bazează pe trei elemente: deplasarea suprafețelor între clasele de legendă, hărțile diferențelor 1991-2020 minus 1961-1990 și 2021-2050 minus 1991-2020, precum și profilele combinate parametrul climatic-altitudine.

Pentru o comparație sintetică a parametrilor, a fost calculat un indice indicativ de redistribuire între clase: jumătate din suma schimbărilor absolute ale suprafețelor claselor, împărțită la suprafața totală a hărții. Indicatorul nu reprezintă o schimbare pixel cu pixel, ci intensitatea deplasării suprafețelor între clasele de legendă. Valorile ridicate indică faptul că o mare parte a teritoriului național trece în alte clase climatice între 1961-1990 și 2021-2050.

Cele mai mari schimbări apar la umiditatea relativă și la viteza vântului. Umiditatea relativă oferă cel mai coerent semnal climatic: o scădere masivă în august și o reducere importantă în noiembrie. Vântul arată o redistribuire numerică foarte mare, dar este și parametrul cel mai sensibil la rezoluția modelului și la parametrizări, motiv pentru care trebuie verificat cu atenție în raport cu datele de la stații și cu produsele climatice utilizate.

Tabelul 2. Indicele de redistribuire a suprafețelor după semnificația climatică

Parametru	Indice de redistribuire totală între 1961-1990 și 2021-2050 (%)	Semnificație climatică
Umiditate relativă	≈71%	cea mai mare schimbare; aridizare puternică, mai ales în august
Viteza vântului	≈57%	redistribuire foarte mare în proiecție; este necesară o interpretare prudentă din cauza sensibilității modelării vântului
Temperatura minimă	≈45%	încălzire accentuată a nopților, reducerea înghețului și a nopților răcoroase de vară
Temperatura medie	≈40%	încălzire generală, mai ales iarna
Temperatura maximă	≈36%	creșterea maximelor de vară și a maximelor pozitive de iarnă
Precipitații	≈30%	uscăciune mai accentuată în iunie și februarie; contracția claselor umede
Durata de strălucire a Soarelui	≈27%	creșterea duratei de strălucire a Soarelui, mai ales vara și în decembrie
Nebulozitate	≈20%	scădere moderată a nebulozității, mai evidentă în august
Presiune atmosferică	≈10%	schimbări limitate; control altitudinal dominant
Strat de zăpadă	≈6%	schimbare areală mică la scară națională, dar importantă altitudinal în Carpați

Legendă pentru Tabelul 2. Indicele de redistribuire totală între 1961-1990 și 2021-2050 înseamnă comparația directă dintre distribuția pe clase din perioada de referință 1961-1990 și distribuția pe clase din proiecția 2021-2050. Indicele nu indică o redistribuire anuală și nu reprezintă suma schimbărilor 1961-1990 -> 1991-2020 și 1991-2020 -> 2021-2050.

The thermal group shows large and consistent changes. Minimum temperatures change most strongly, which means a reduction in the frequency and intensity of cold nights and an increase in warm summer nights. July maxima increase mainly through the emergence of the class above 30 °C, while January maxima increase through the expansion of positive classes. This signal is particularly clear in the Romanian Plain, the Western Plain, Dobrogea, the Danube Delta, and the Moldavian Plateau.

Precipitation shows a smaller change than temperature or relative humidity, but it remains climatically very relevant: wet classes retreat in June and February, while dry classes expand. Combined with higher temperatures, greater sunshine, and lower relative humidity, this indicates an intensification of water deficit in lowland and plateau areas. The Carpathians maintain their role as a pluviometric core, but even there the very wet areas contract in the projection.

Smaller changes are observed for pressure and, at the national-area level, for snow. For pressure, the explanation lies in the strong altitudinal control, which remains stable. For snow, national areas may appear little changed because small classes dominate the map, but in the mountains the changes are important: in February, moderate classes contract; October remains almost snow-free outside the high massifs; and April indicates persistence or late accumulations at high elevations in the Carpathians.

The integrated signal of the maps for maximum and minimum months is one of warming, increasing sunshine, decreasing relative humidity, and reduced precipitation in the months analyzed. In lowland and plateau areas, these changes overlap and indicate a stronger aridization tendency than would result from analyzing temperature separately. In the Carpathians, the changes are expressed mainly through the vertical shift of climatic belts: higher temperatures, contraction of cold classes and snow at medium altitudes, but persistence of snow and pluviometric cores at high elevations.

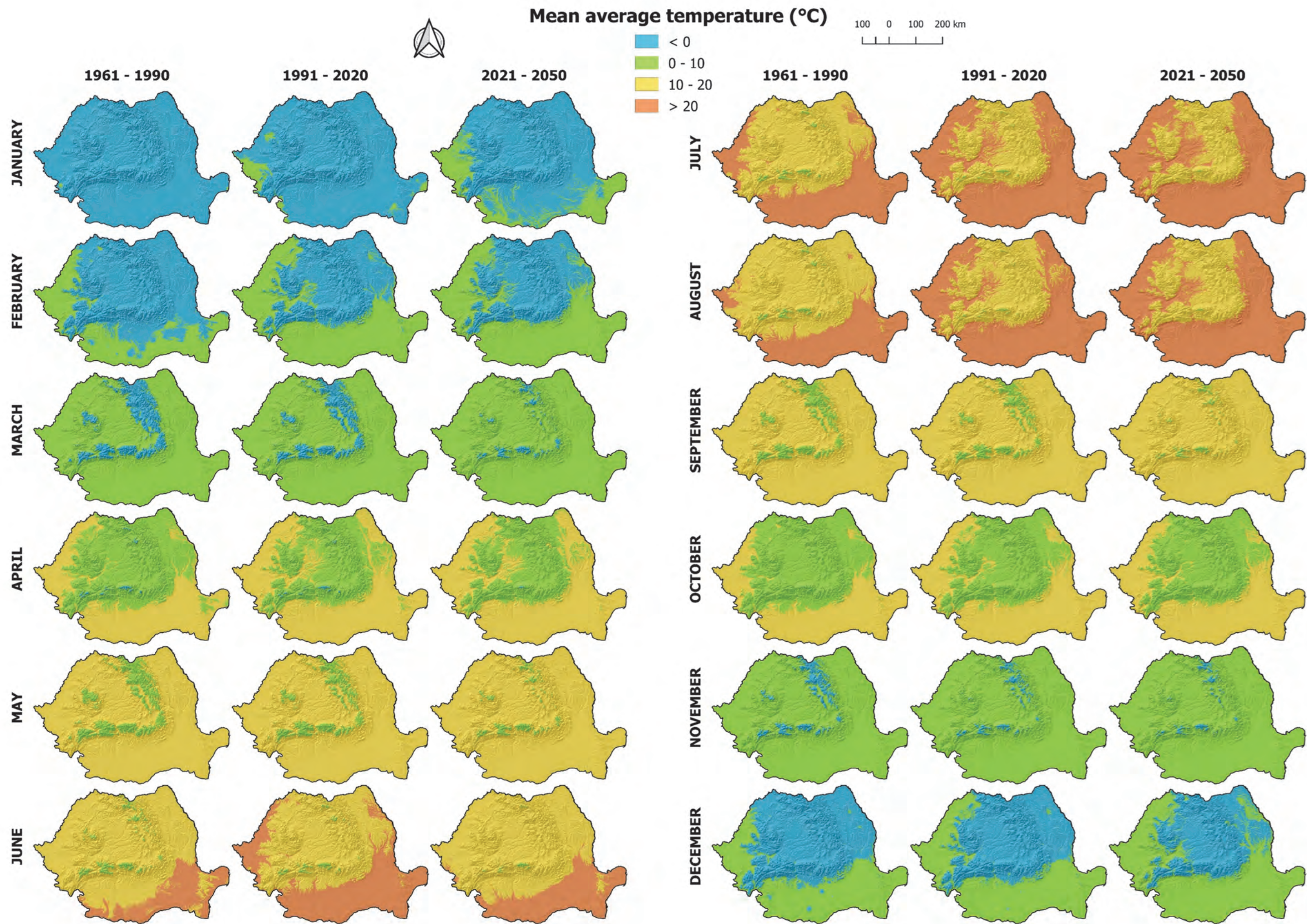
Grupul termic arată schimbări mari și consecvente. Temperaturile minime se modifică cel mai puternic, ceea ce înseamnă reducerea frecvenței și intensității nopților reci și creșterea nopților calde de vară. Maximele din iulie cresc în principal prin apariția clasei de peste 30 °C, iar maximele din ianuarie cresc prin extinderea claselor pozitive. Acest semnal este deosebit de clar în Câmpia Română, Câmpia de Vest, Dobrogea, Delta Dunării și Podișul Moldovei.

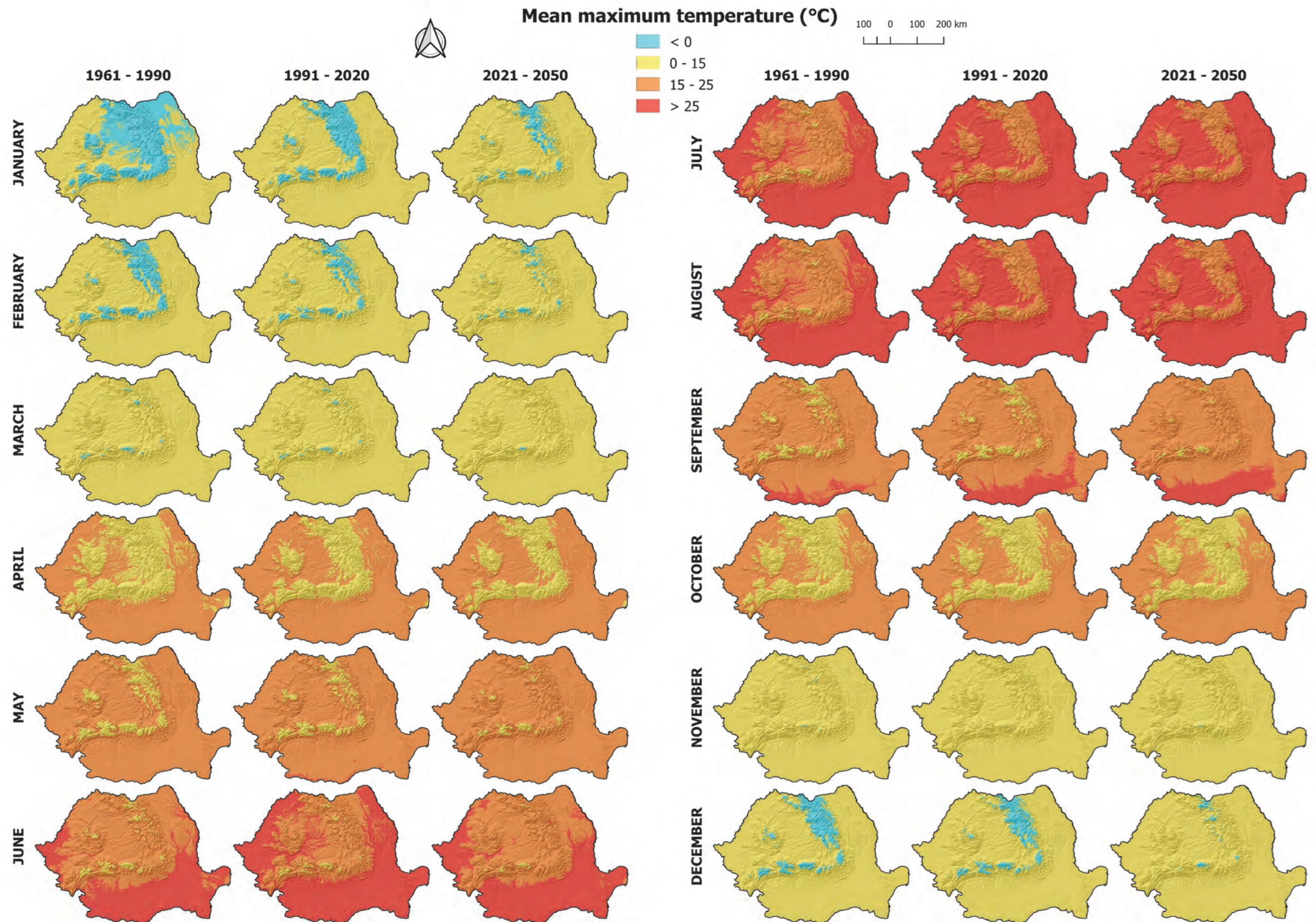
Precipitațiile arată o schimbare mai mică decât temperatura sau umiditatea relativă, dar rămân foarte relevante climatic: clasele umede se retrag în iunie și februarie, în timp ce clasele uscate se extind. Combinate cu temperaturi mai ridicate, cu insolație mai mare și cu umiditate relativă mai scăzută, aceste schimbări indică intensificarea deficitului de apă în zonele de câmpie și de podiș. Carpații își mențin rolul de nucleu pluviometric, dar chiar și acolo ariile foarte umede se contractă în proiecție.

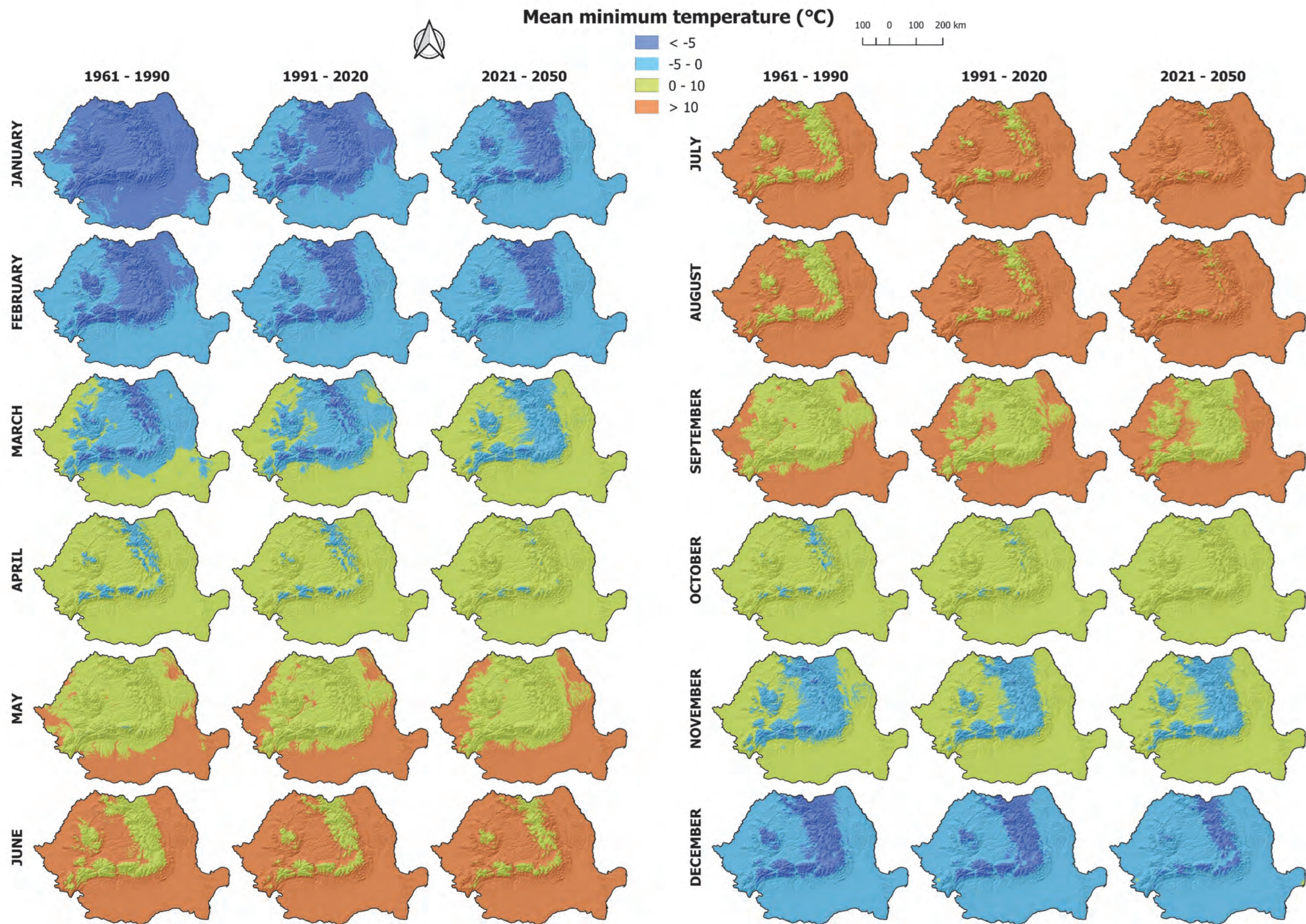
Schimbări mai mici se observă pentru presiune și, la nivelul suprafeței naționale, pentru zăpadă. Pentru presiune, explicația constă în controlul altitudinal puternic, care rămâne stabil. Pentru zăpadă, suprafețele naționale pot părea puțin modificate deoarece clasele mici domină harta, dar în munți schimbările sunt importante: în februarie se contractă clasele moderate; octombrie rămâne aproape fără zăpadă în afara masivelor înalte; iar aprilie indică persistență sau acumulări târzii la altitudini mari în Carpați.

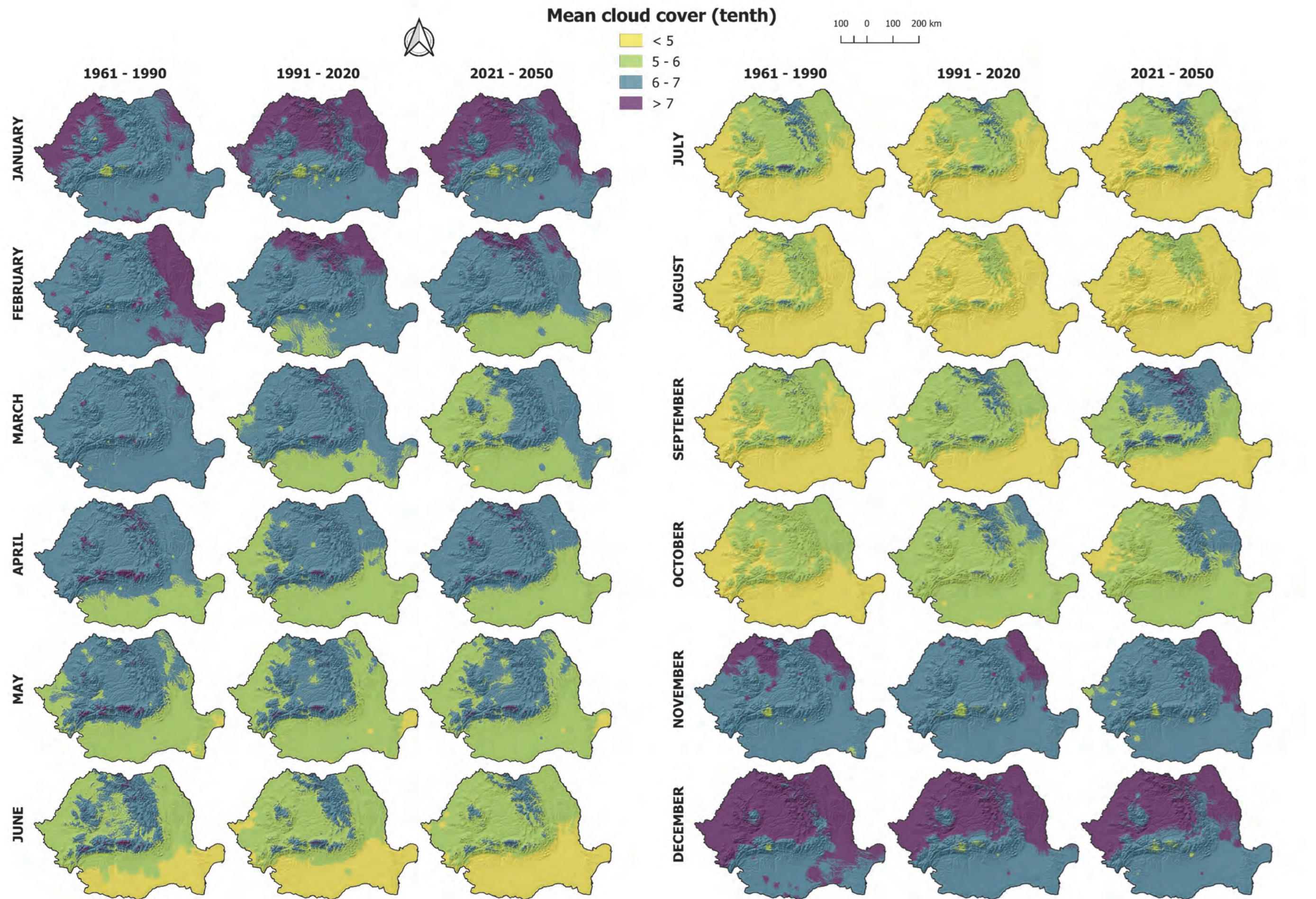
Semnalul integrat al hărților pentru lunile de maxim și de minim este unul de încălzire, creștere a duratei de strălucire a Soarelui, scădere a umidității relative și reducere a precipitațiilor în lunile analizate. În zonele de câmpie și de podiș, aceste schimbări se suprapun și indică o tendință de aridizare mai puternică decât ar rezulta din analiza separată a temperaturii. În Carpați, schimbările se exprimă în principal prin deplasarea verticală a etajelor climatice: temperaturi mai ridicate, contracția claselor reci și a zăpezii la altitudini medii, dar persistența zăpezii și a nucleelor pluviometrice la altitudini mari.

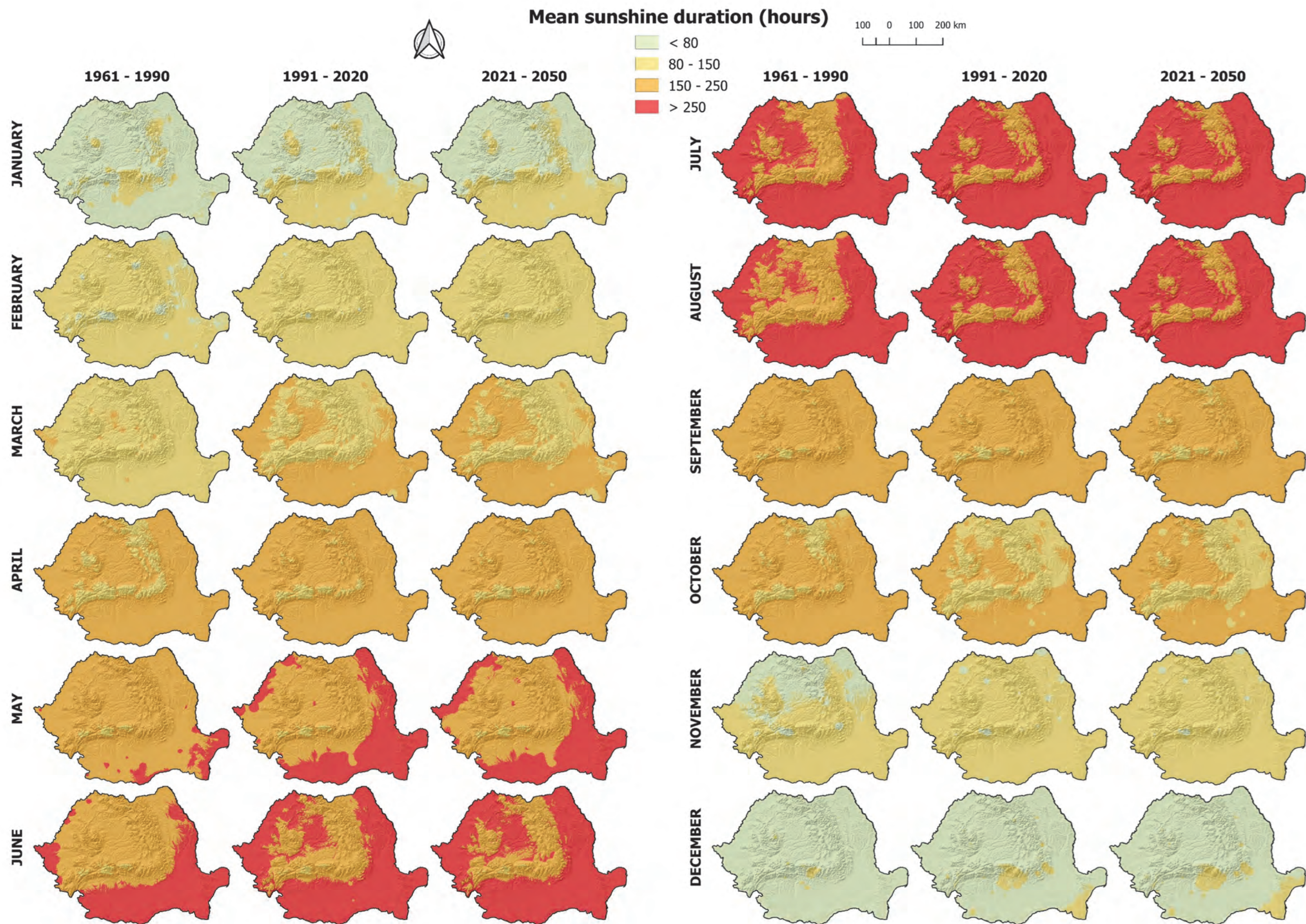
MAPS OF MONTHLY MEAN AVERAGE OF PARAMETERS

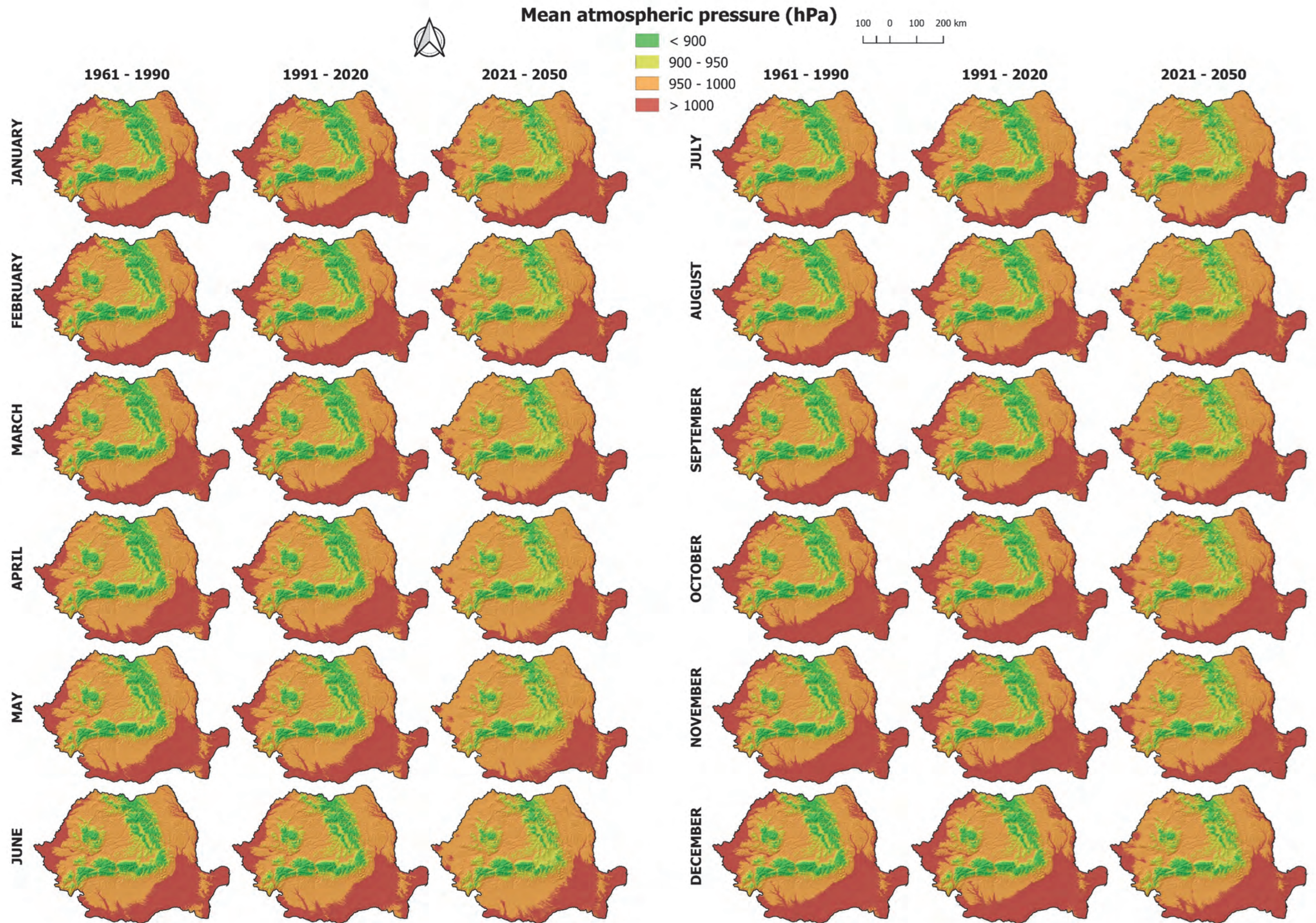


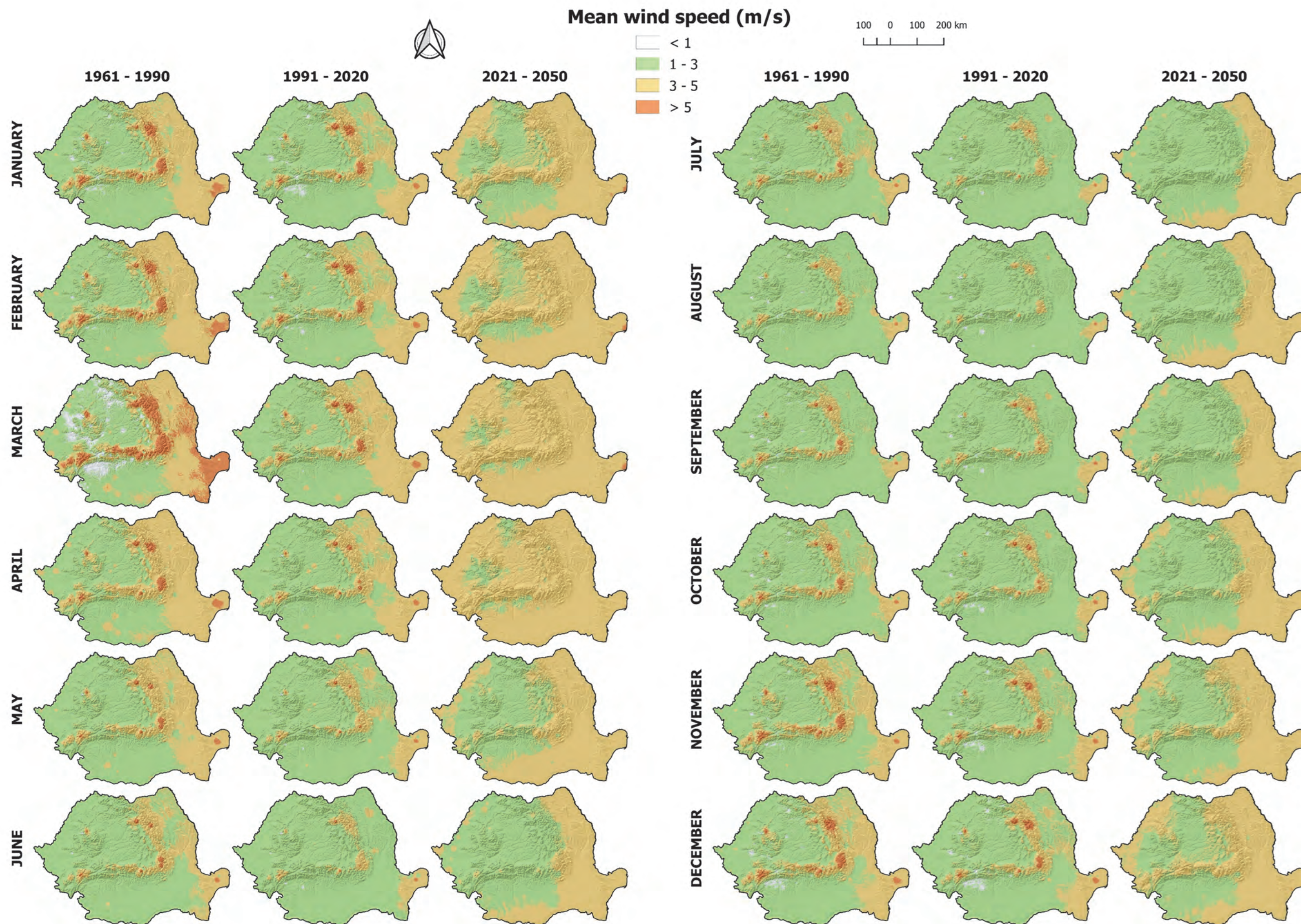


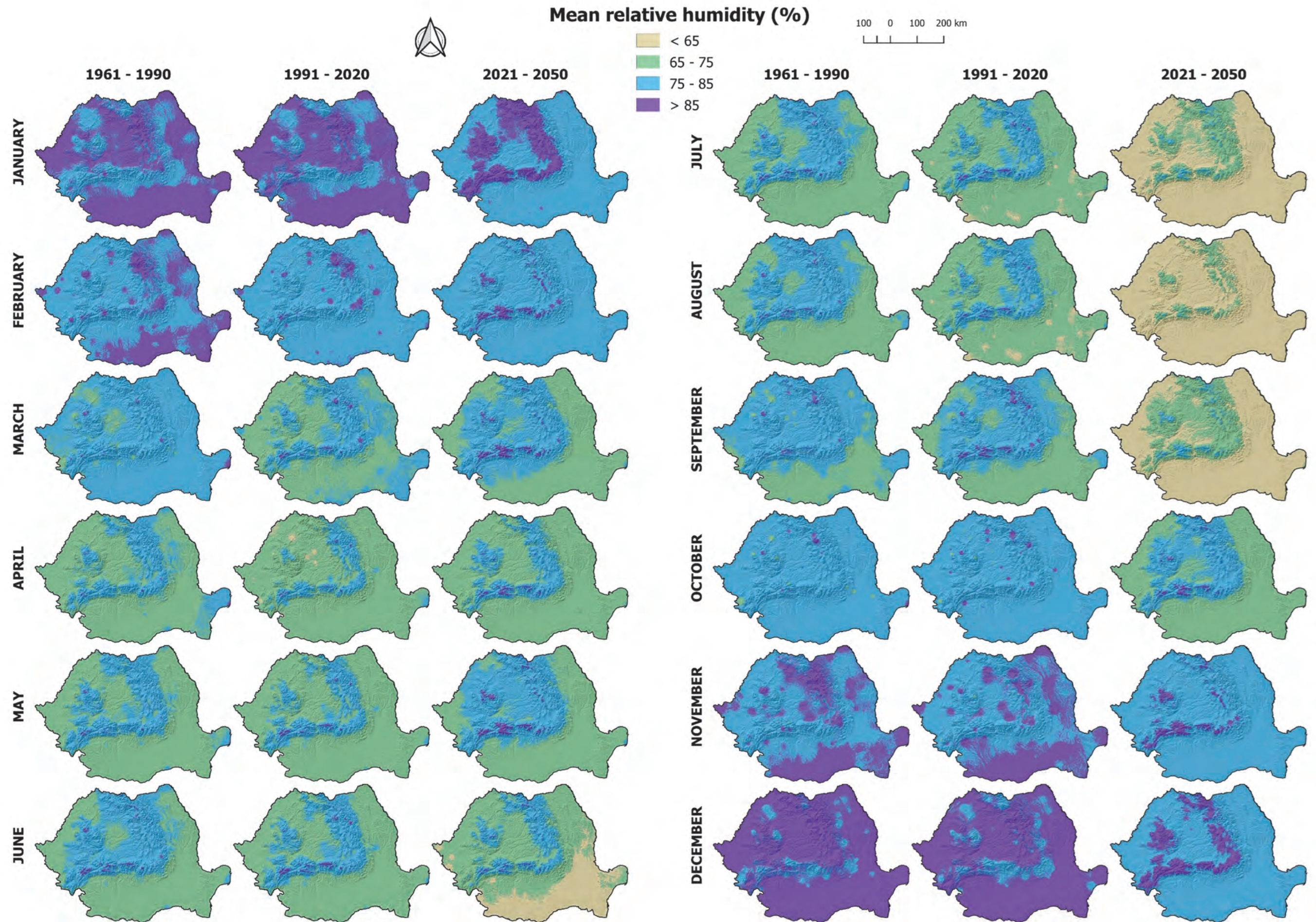


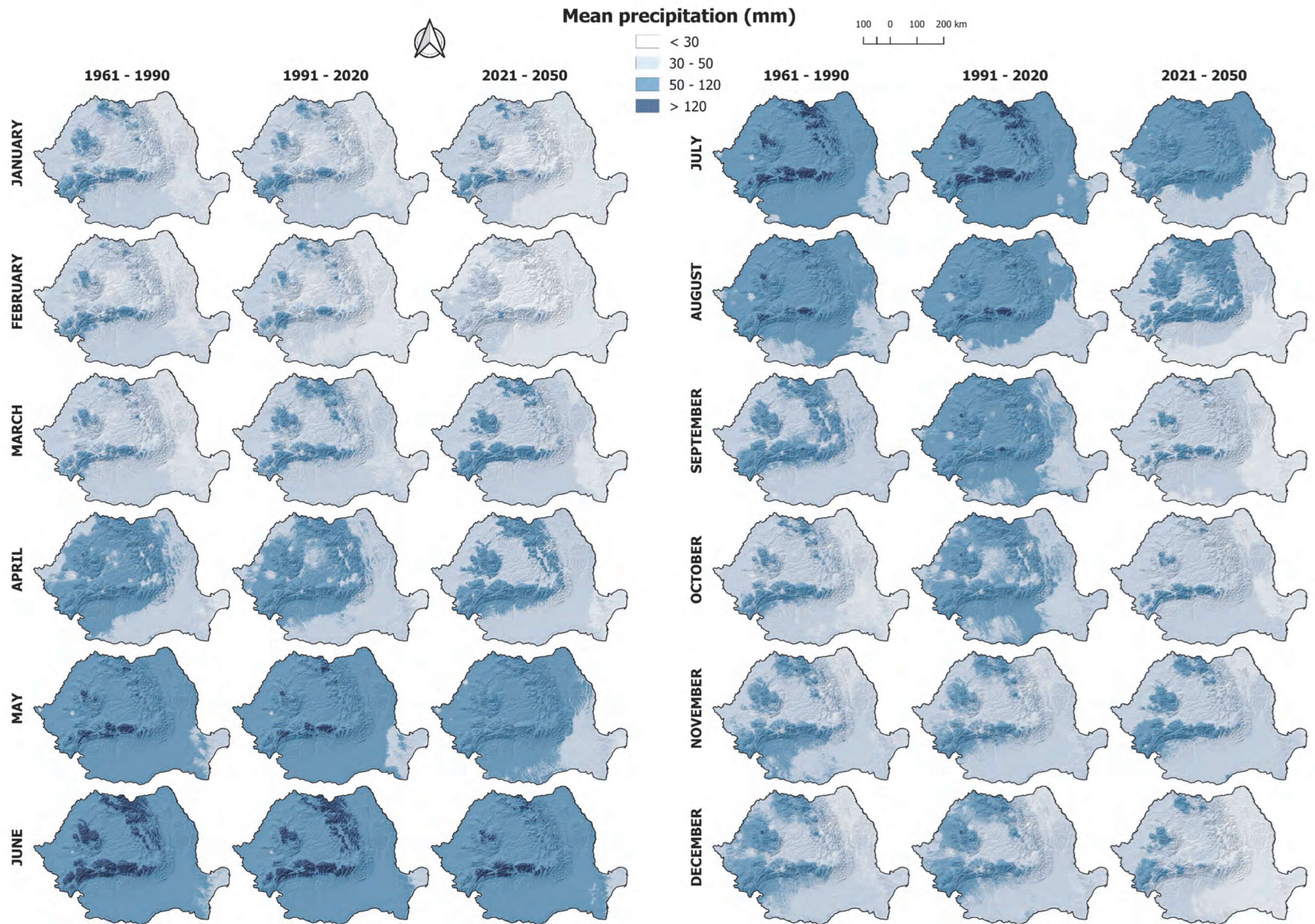


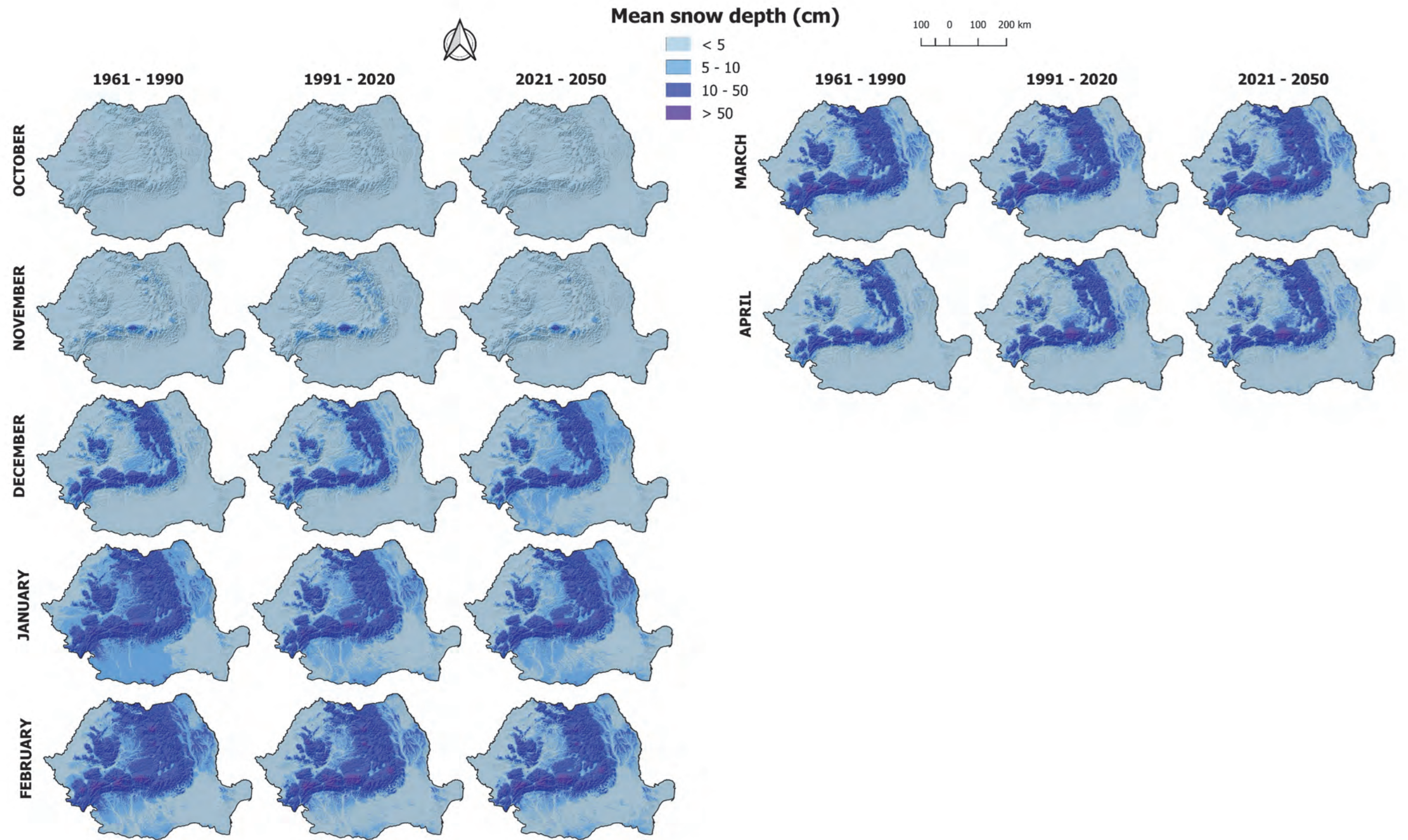












EXPLANATION

This chapter brings together the monthly maps of the main climatic parameters analyzed in the atlas for three representative time intervals: the climatic reference period 1961-1990, the recent period 1991-2020, and the projected interval 2021-2050. Through the cartographic organization of monthly-scale information and by maintaining the same comparative structure for each parameter, the material provides a synthetic view of how Romania's climate regime manifests seasonally, spatially, and temporally.

The set of maps includes ten climatic parameters essential for characterizing the atmospheric environment: mean air temperature, mean maximum temperature, mean minimum temperature, mean cloudiness, mean sunshine duration, mean atmospheric pressure, mean wind speed, mean relative humidity, mean precipitation amount, and mean snow-cover depth. These indicators make it possible both to highlight regional climatic features determined by relief, altitude, geographical position, and continental or Pontic influences, and to trace the changes that occur between successive climatic periods.

The ensemble of monthly maps clearly highlights the seasonal, regional, and evolutionary character of Romania's climate. Comparing the three analyzed periods indicates a gradual but coherent modification of the main climatic parameters, expressed differently depending on season and geographical unit. Beyond local variations, the common element structuring the interpretation is the general shift toward warmer, sunnier, and, in certain regions and months, drier conditions.

Overall, the monthly maps confirm that interperiod statistical change does not occur uniformly, but through changes differentiated by season, relief, and region. The warming signal is the most coherent and easiest to follow cartographically, whereas water-related parameters - relative humidity, precipitation, and snow cover - express greater complexity, determined by the interaction between temperature, atmospheric circulation, and local conditions. The most sensitive regions occur in the low extracarpathian areas, especially in the south, southeast, and east of the country, where increasing temperatures, declining relative humidity, and longer sunshine duration may accentuate seasonal water stress.

EXPLICAȚII

Acest capitol reunește hărțile lunare ale principalilor parametri climatici analizați în atlas pentru trei intervale de timp reprezentative: perioada climatică de referință 1961-1990, perioada recentă 1991-2020 și intervalul proiectat 2021-2050. Prin organizarea cartografică a informației la scară lunară și prin menținerea aceleiași structuri comparative pentru fiecare parametru, materialul oferă o imagine sintetică asupra modului în care regimul climatic al României se manifestă sezonier, spațial și temporal.

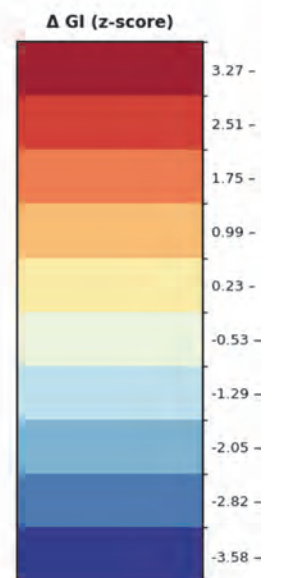
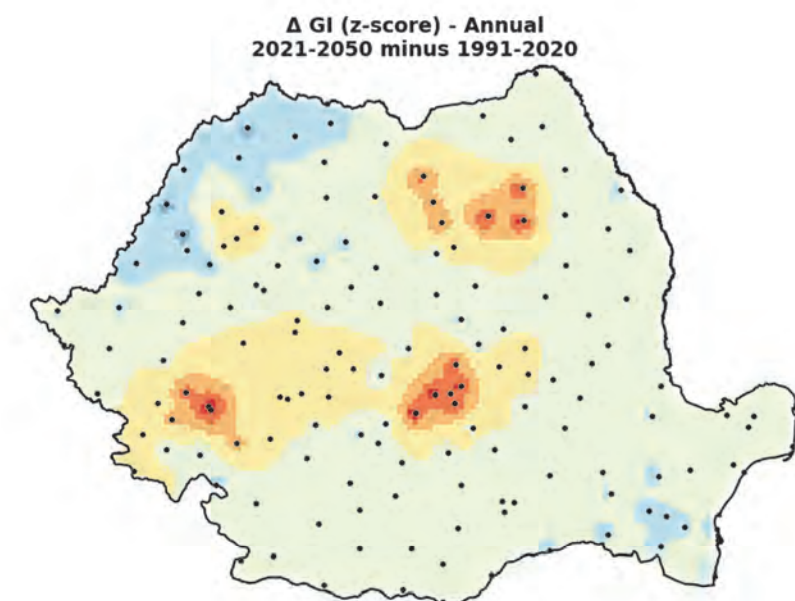
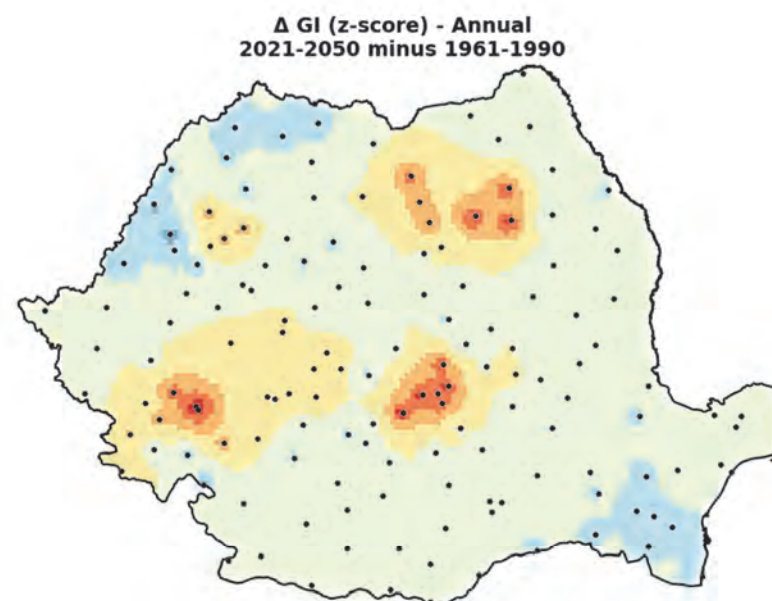
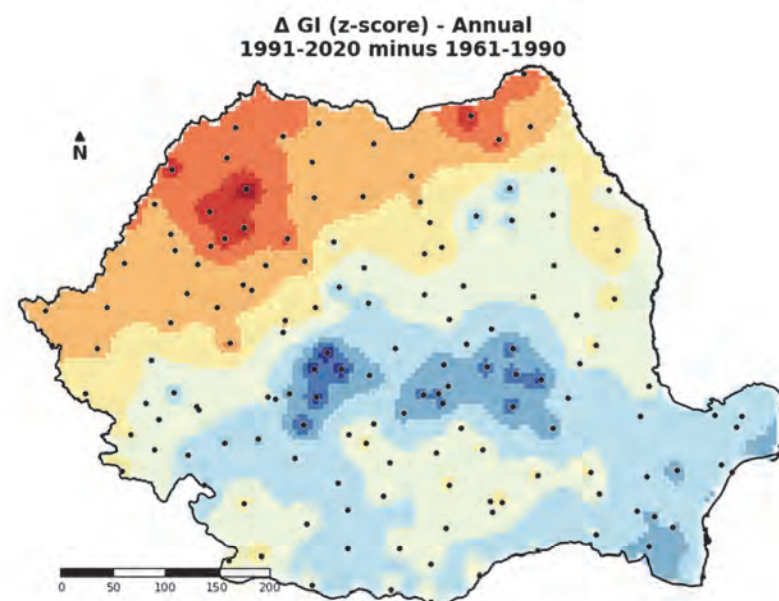
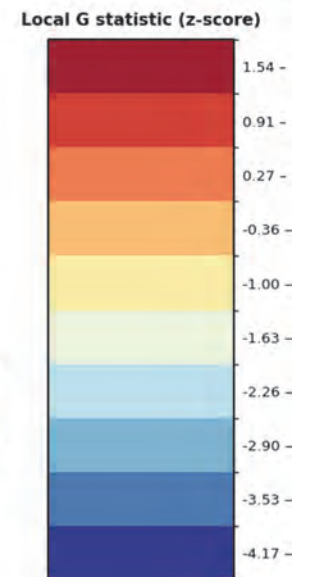
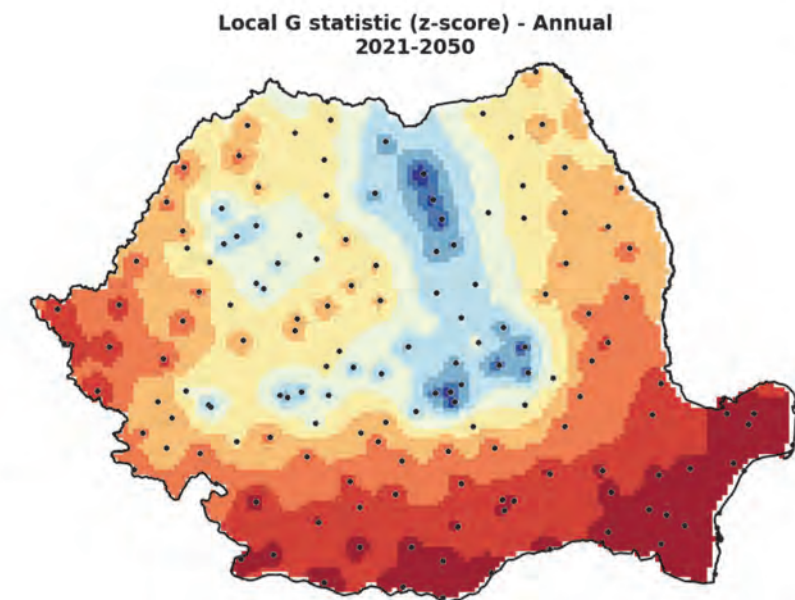
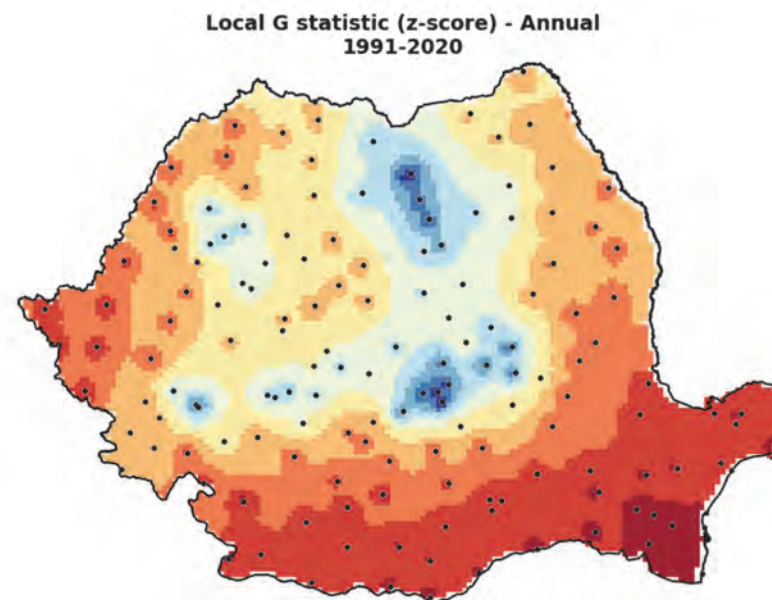
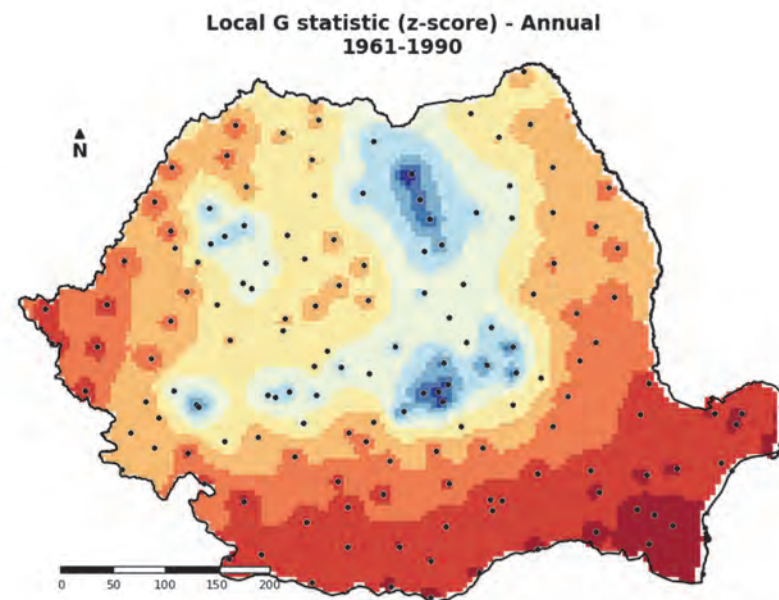
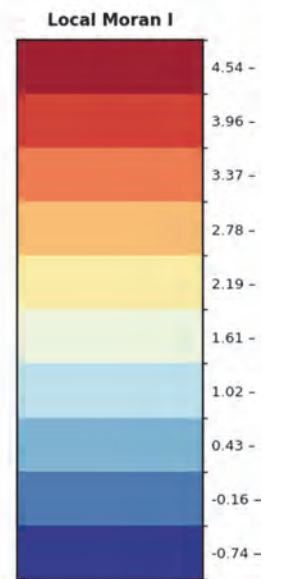
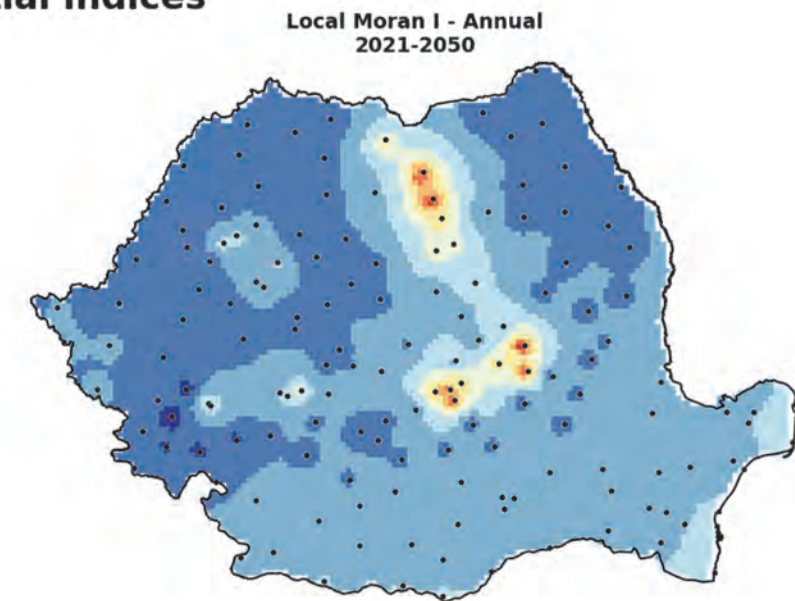
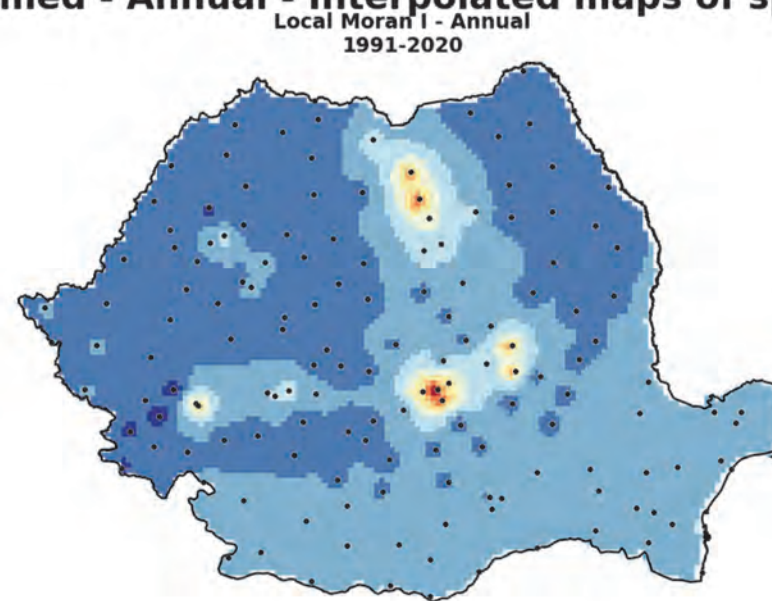
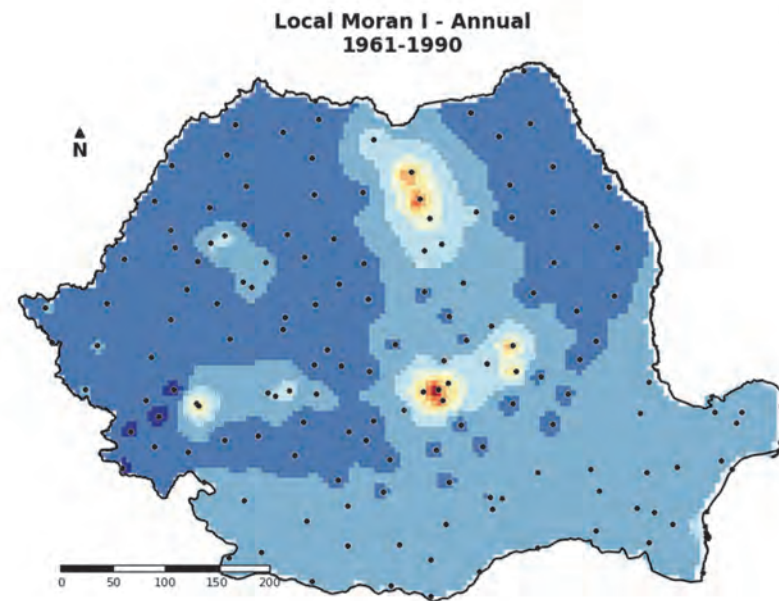
Setul de hărți include zece parametri climatici esențiali pentru caracterizarea mediului atmosferic: temperatura medie a aerului, temperatura maximă medie, temperatura minimă medie, nebulozitatea medie, durata medie de strălucire a Soarelui, presiunea atmosferică medie, viteza medie a vântului, umiditatea relativă medie, cantitatea medie de precipitații și grosimea medie a stratului de zăpadă. Acești indicatori permit atât evidențierea particularităților climatice regionale determinate de relief, altitudine, poziție geografică și influențe continentale sau pontice, cât și urmărirea schimbărilor care apar între perioade climatice succesive.

Ansamblul hărților lunare evidențiază clar caracterul sezonier, regional și evolutiv al climatului României. Compararea celor trei perioade analizate indică o modificare treptată, dar coerentă, a principalilor parametri climatici, exprimată diferit în funcție de sezon și de unitatea geografică. Dincolo de variațiile locale, elementul comun care structurează interpretarea este deplasarea generală spre condiții mai calde, mai însorite și, în anumite regiuni și luni, mai uscate.

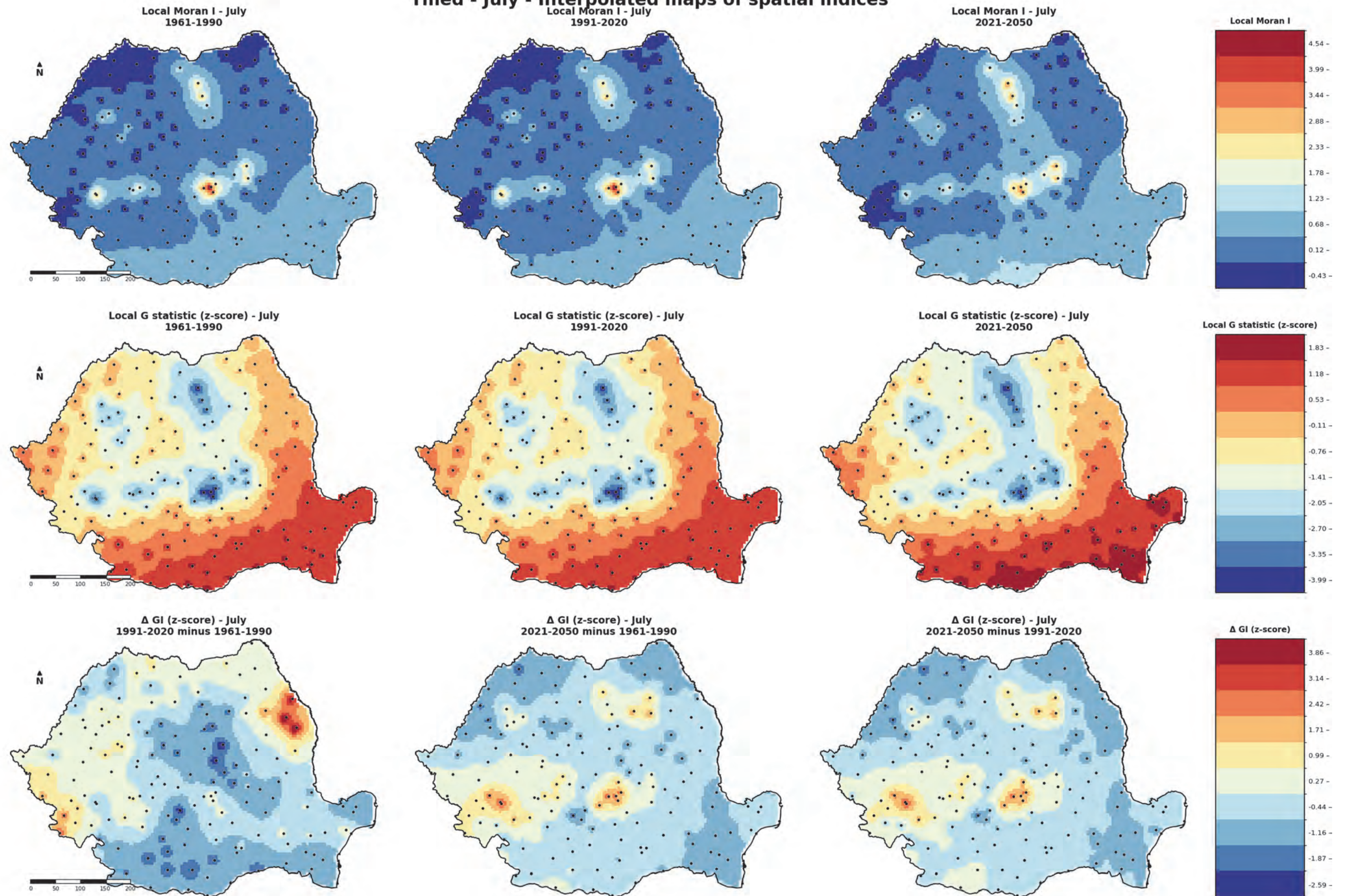
În ansamblu, hărțile lunare confirmă că schimbarea statistică interperiodică nu se produce uniform, ci prin modificări diferențiate în funcție de sezon, relief și regiune. Semnalul de încălzire este cel mai coerent și cel mai ușor de urmărit cartografic, în timp ce parametrii legați de apă - umiditatea relativă, precipitațiile și stratul de zăpadă - exprimă o complexitate mai mare, determinată de interacțiunea dintre temperatură, circulația atmosferică și condițiile locale. Regiunile cele mai sensibile apar în ariile extracarpătice joase, mai ales în sudul, sud-estul și estul țării, unde creșterea temperaturilor, scăderea umidității relative și durata mai mare de strălucire a Soarelui pot accentua stresul hidric sezonier.

MAPS OF SPATIAL INDICES

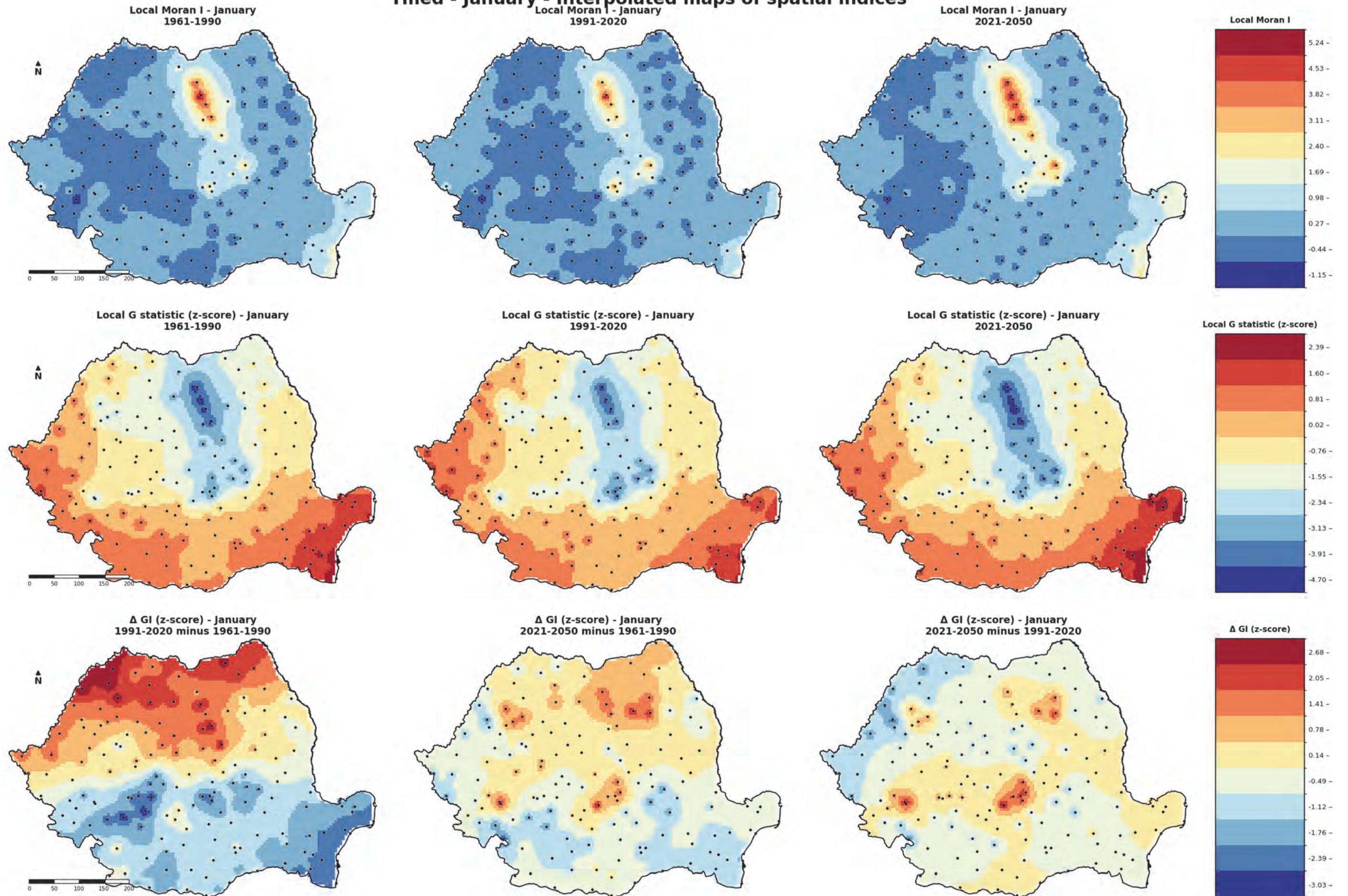
Tmed - Annual - Interpolated maps of spatial indices



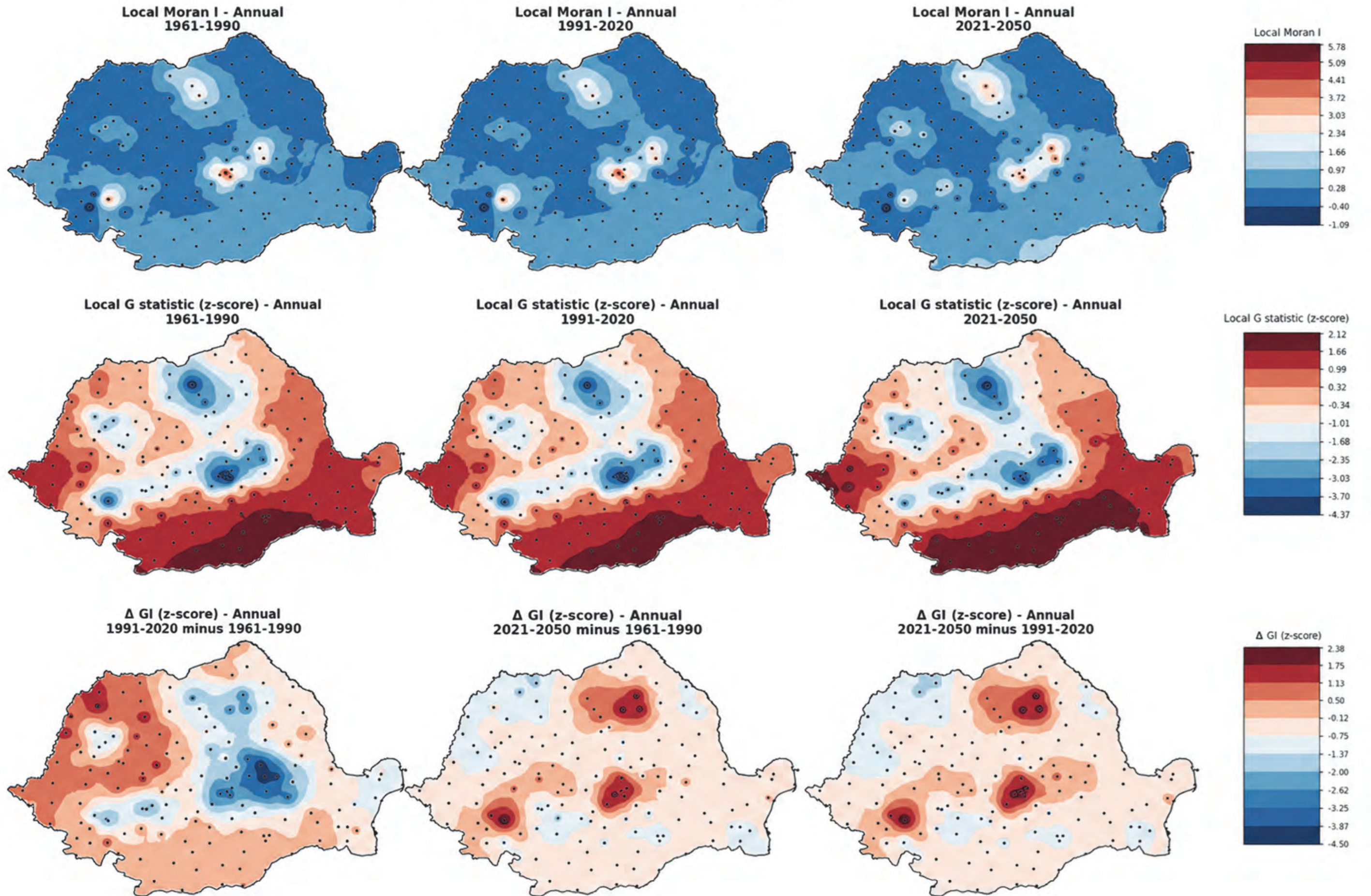
Tmed - July - Interpolated maps of spatial indices



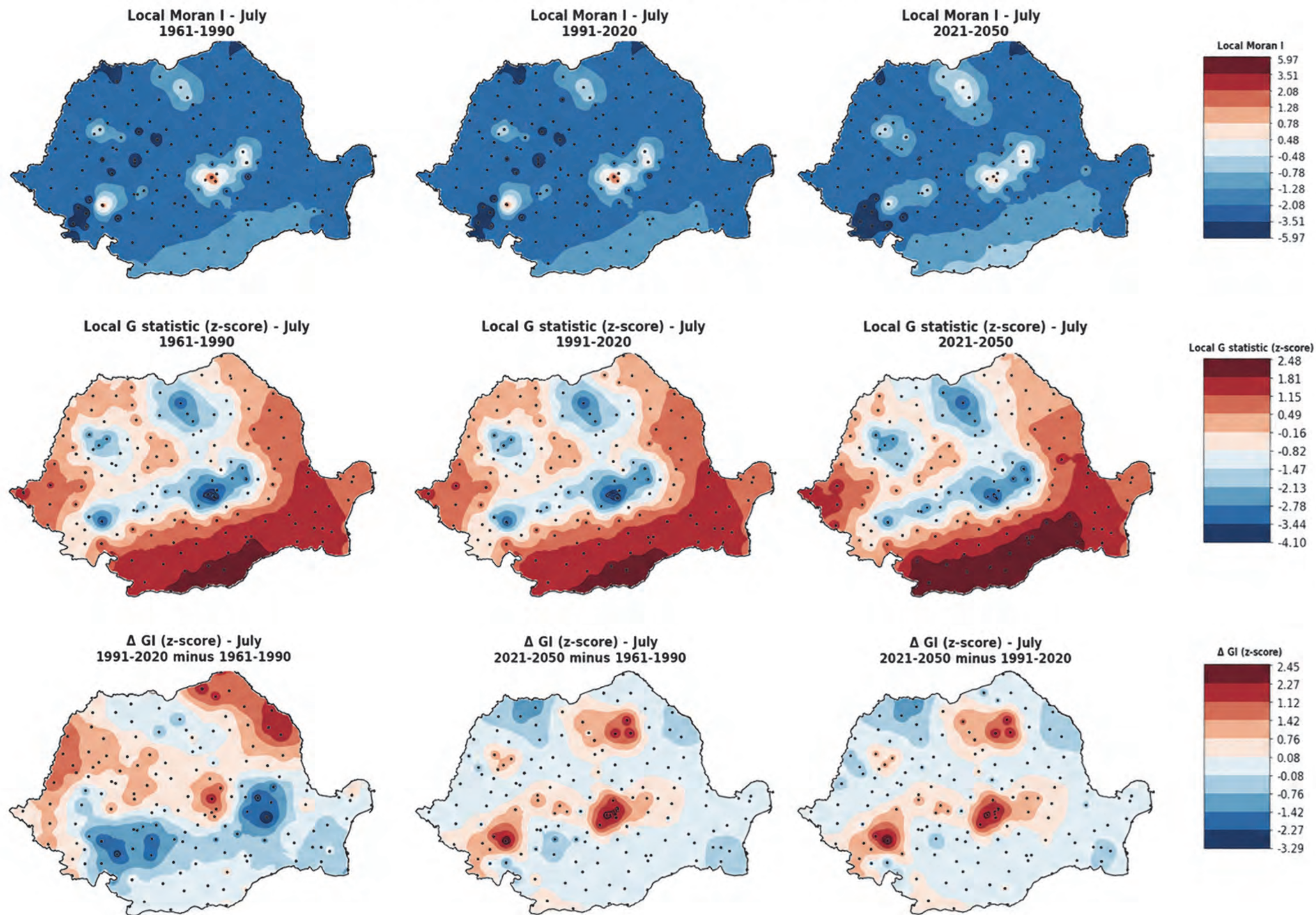
Tmed - January - Interpolated maps of spatial indices



Tmax - Annual - Interpolated maps of spatial indices

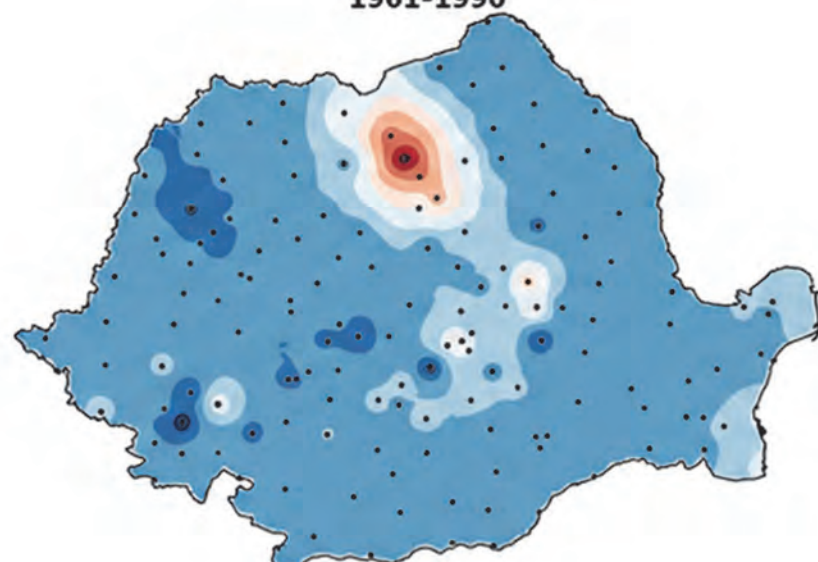


Tmax - July - Interpolated maps of spatial indices

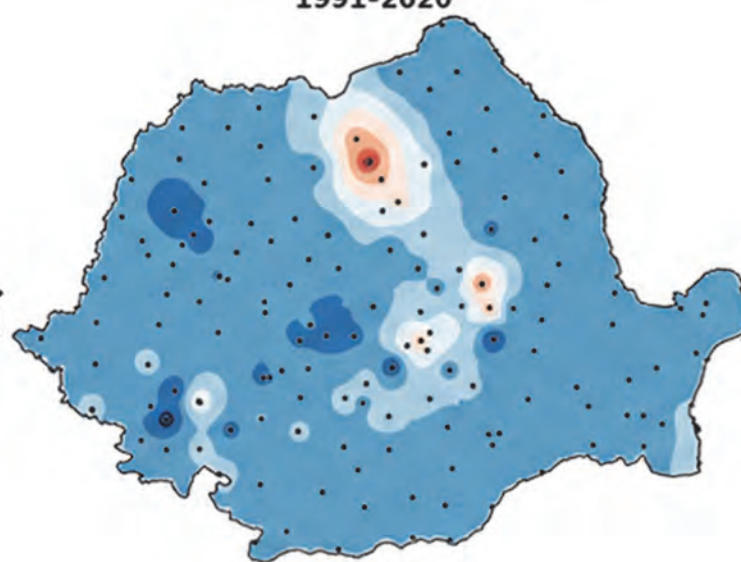


Tmax - January - Interpolated maps of spatial indices

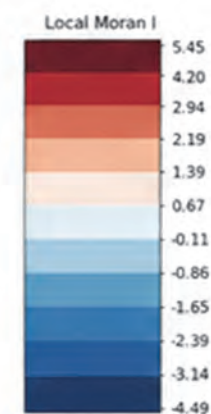
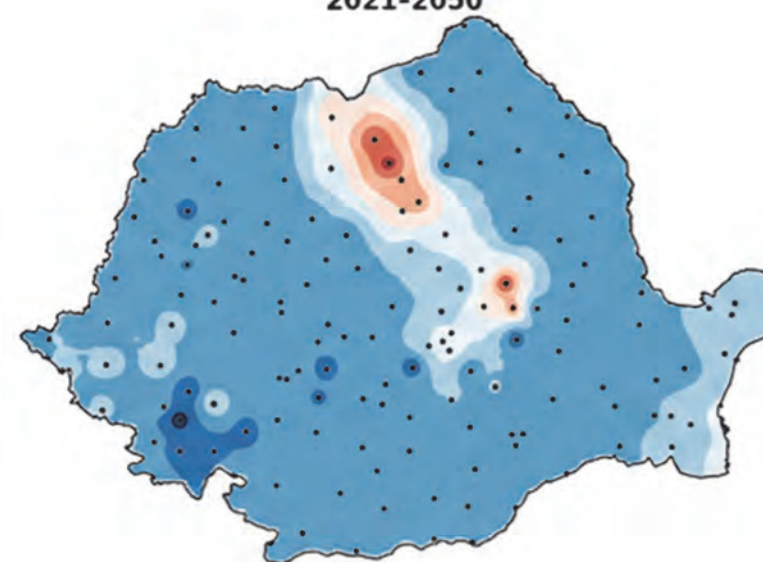
Local Moran I - January
1961-1990



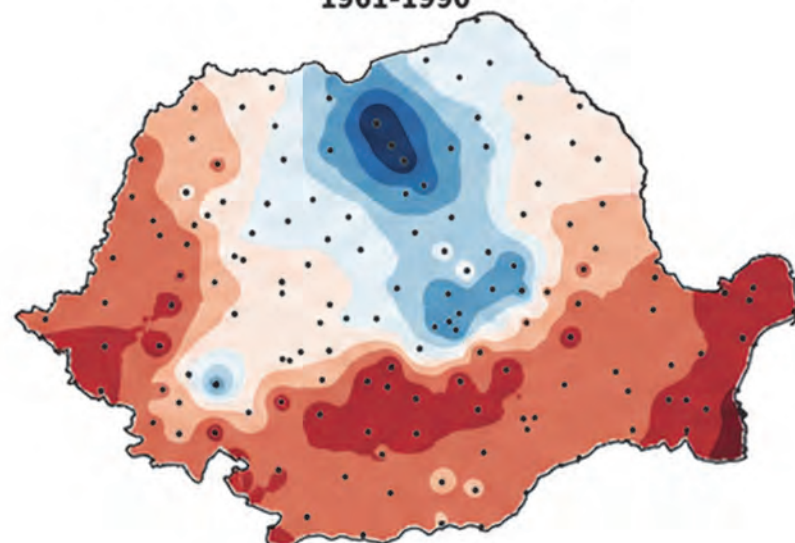
Local Moran I - January
1991-2020



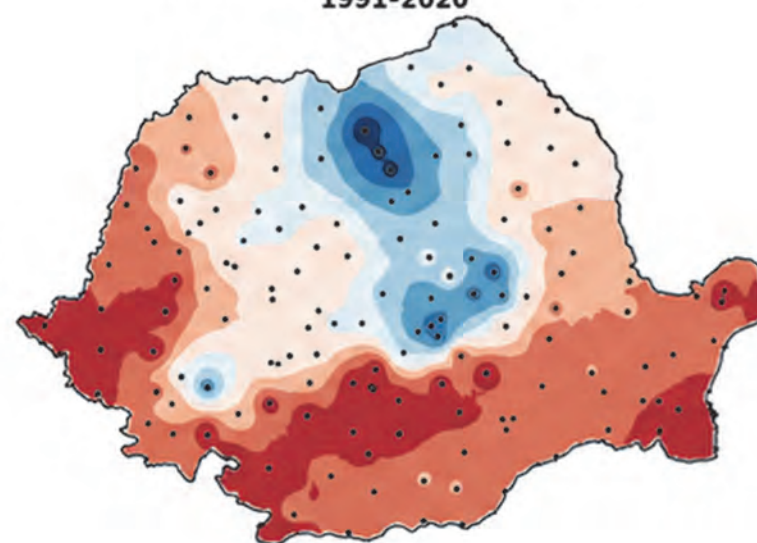
Local Moran I - January
2021-2050



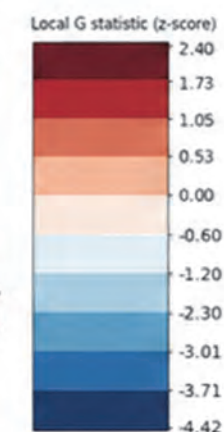
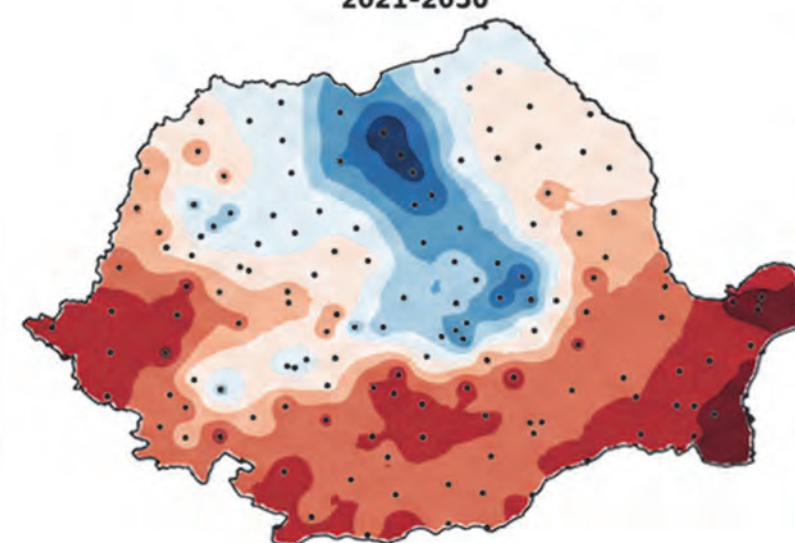
Local G statistic (z-score) - January
1961-1990



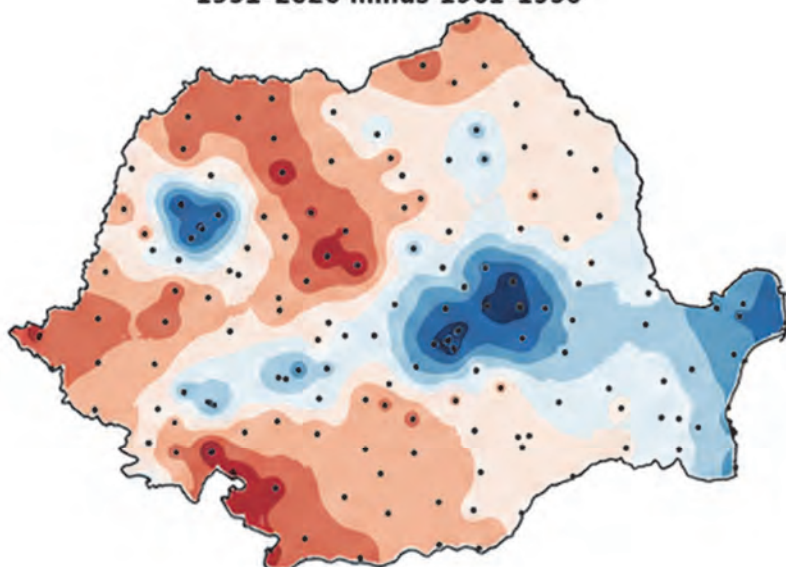
Local G statistic (z-score) - January
1991-2020



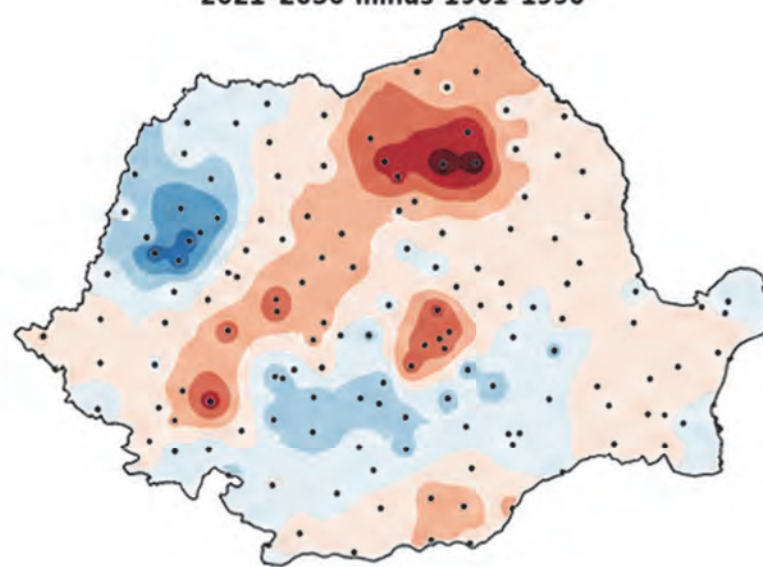
Local G statistic (z-score) - January
2021-2050



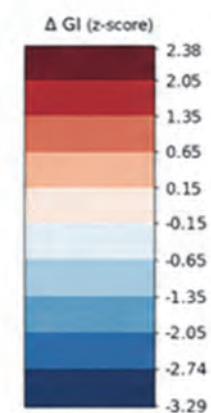
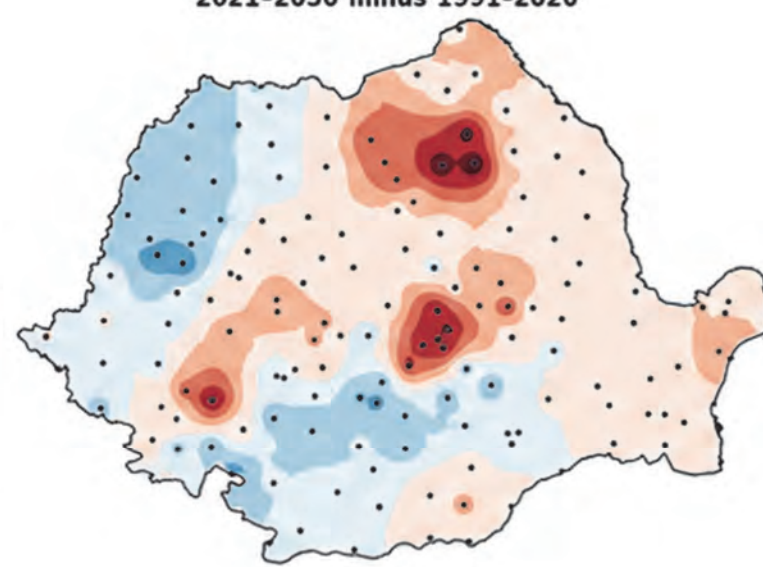
Δ GI (z-score) - January
1991-2020 minus 1961-1990



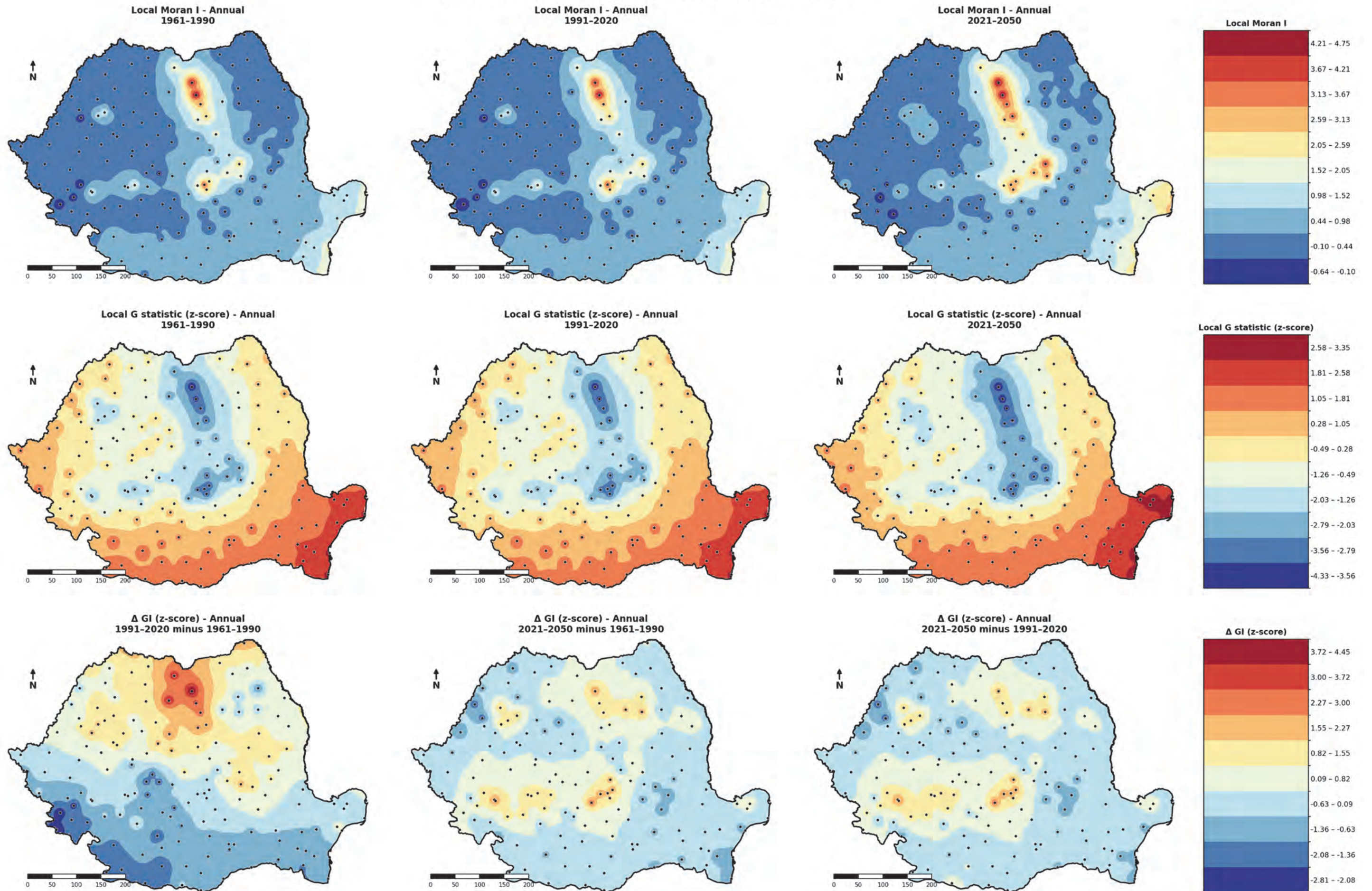
Δ GI (z-score) - January
2021-2050 minus 1961-1990



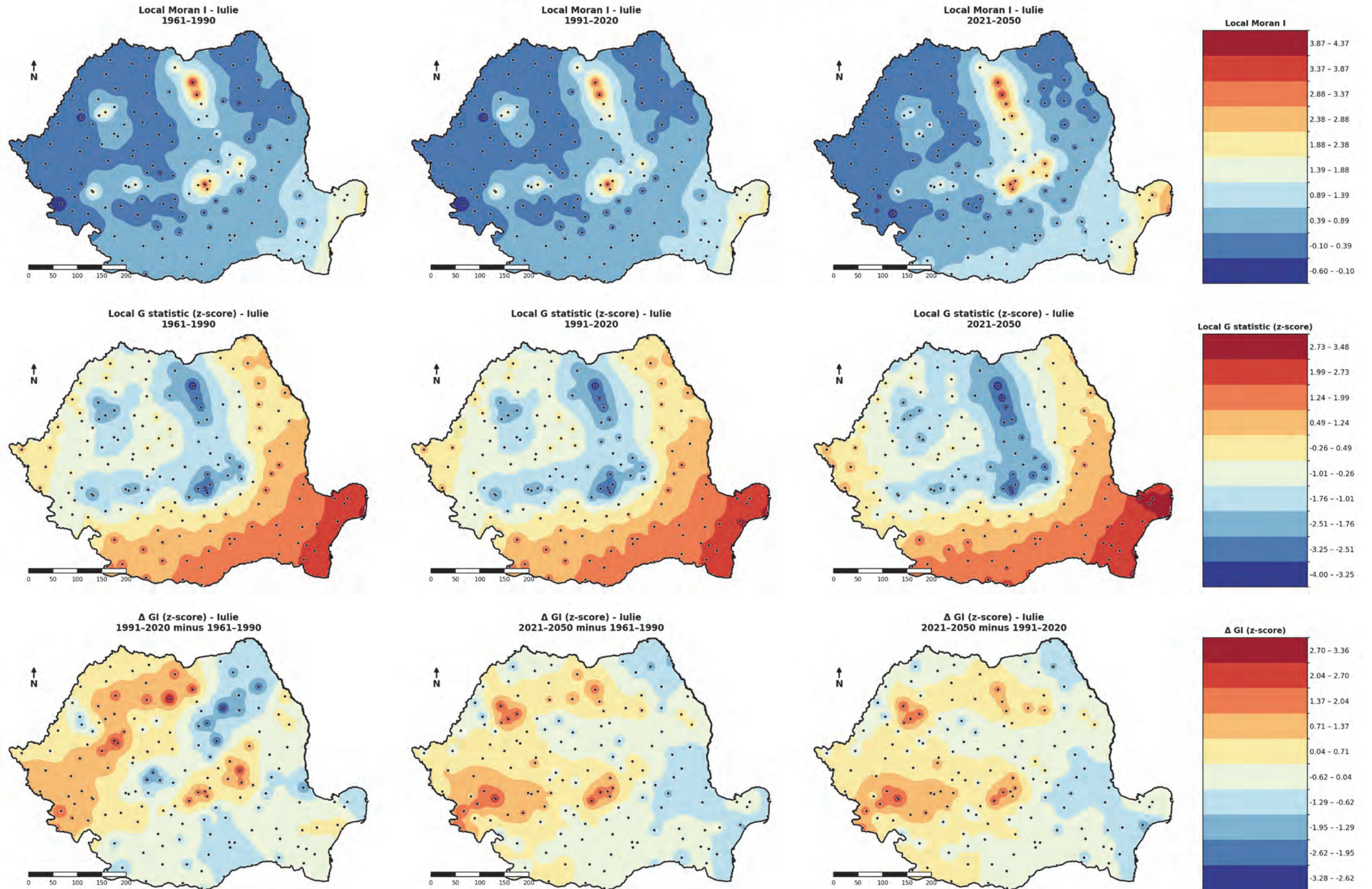
Δ GI (z-score) - January
2021-2050 minus 1991-2020



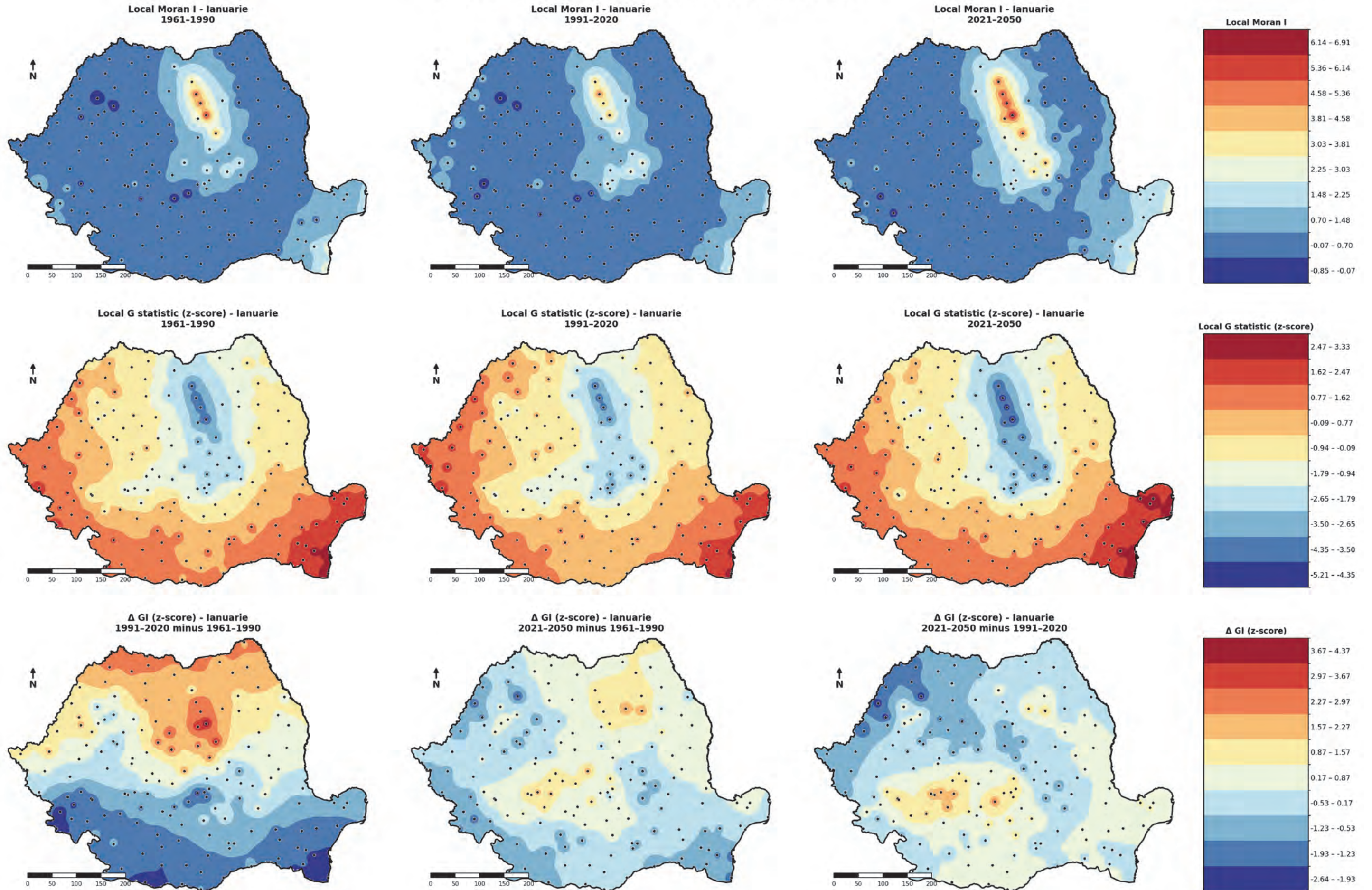
Tmin - Annual - Interpolated maps of spatial indices



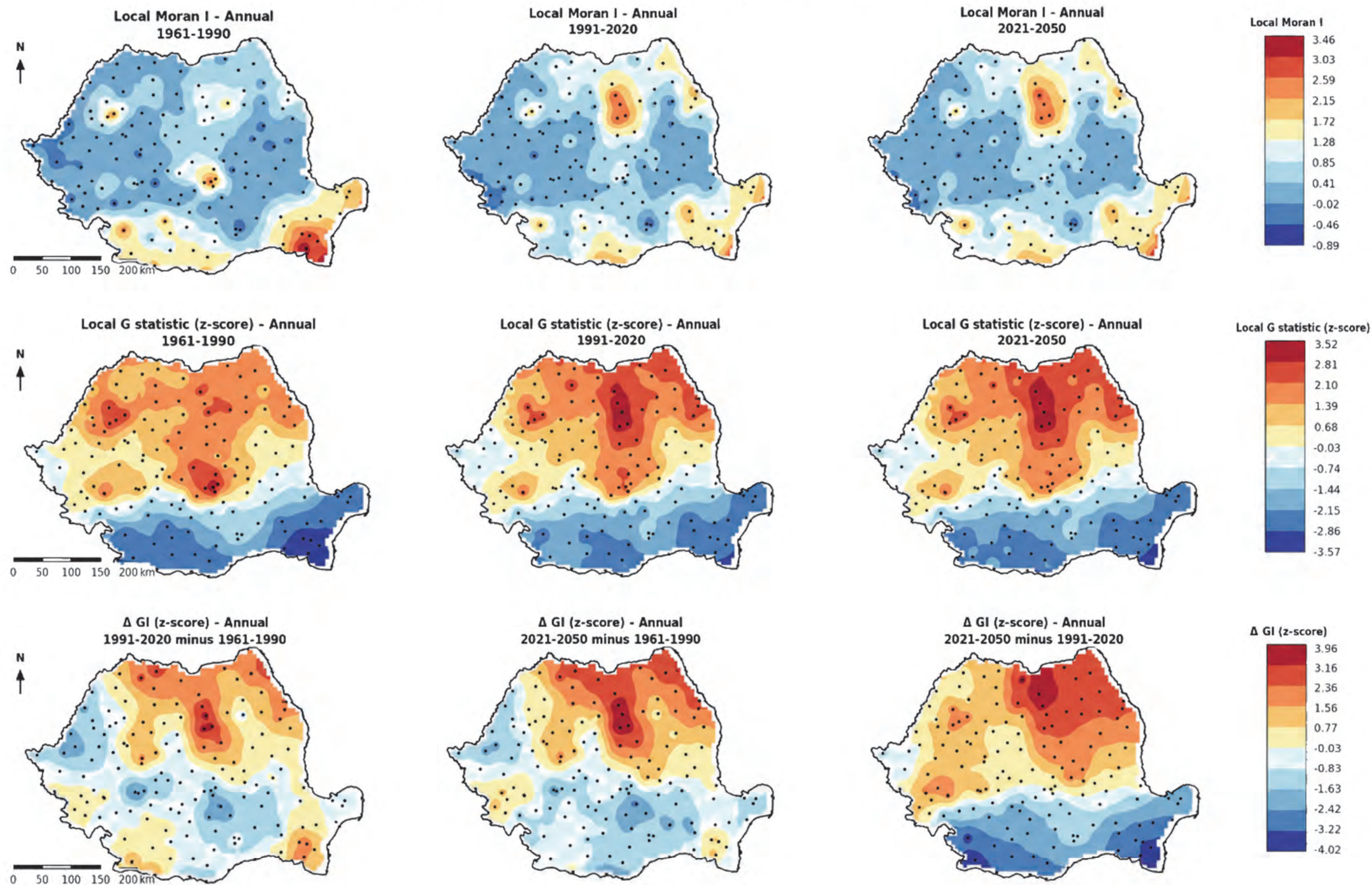
Tmin - Iulie - Interpolated maps of spatial indices



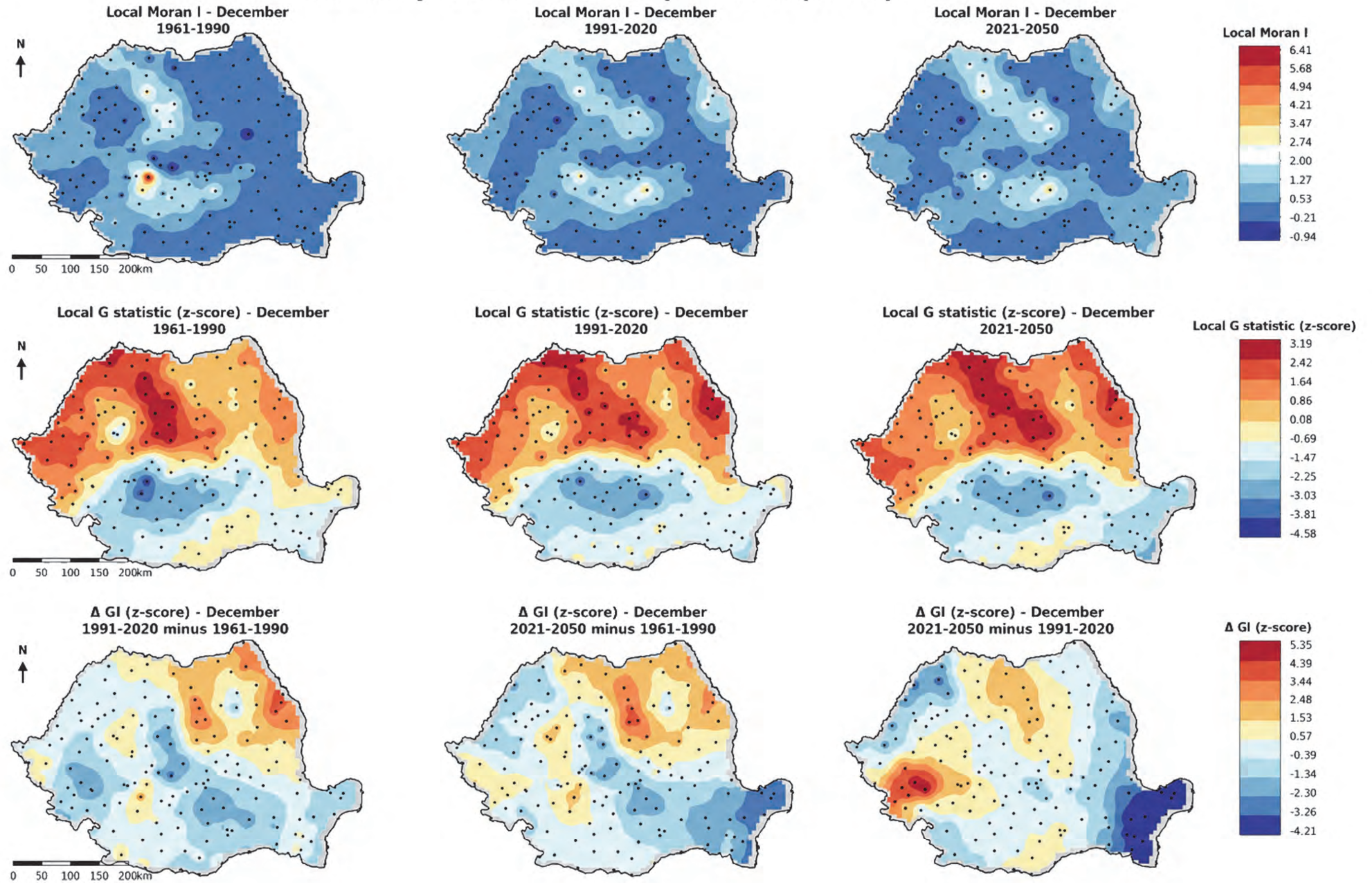
Tmin - Ianuarie - Interpolated maps of spatial indices



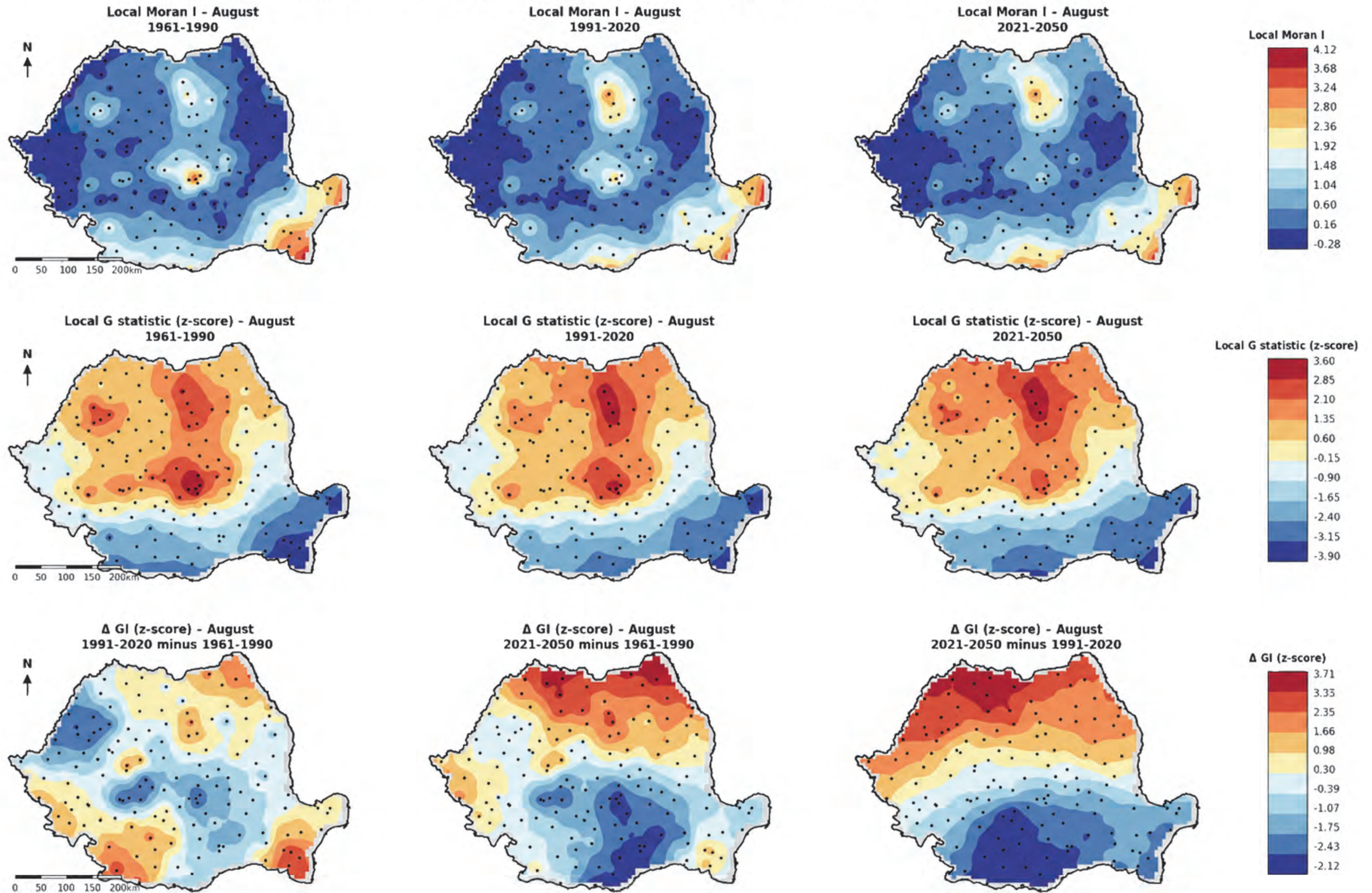
Nebulosity - Annual - Interpolated maps of spatial indices



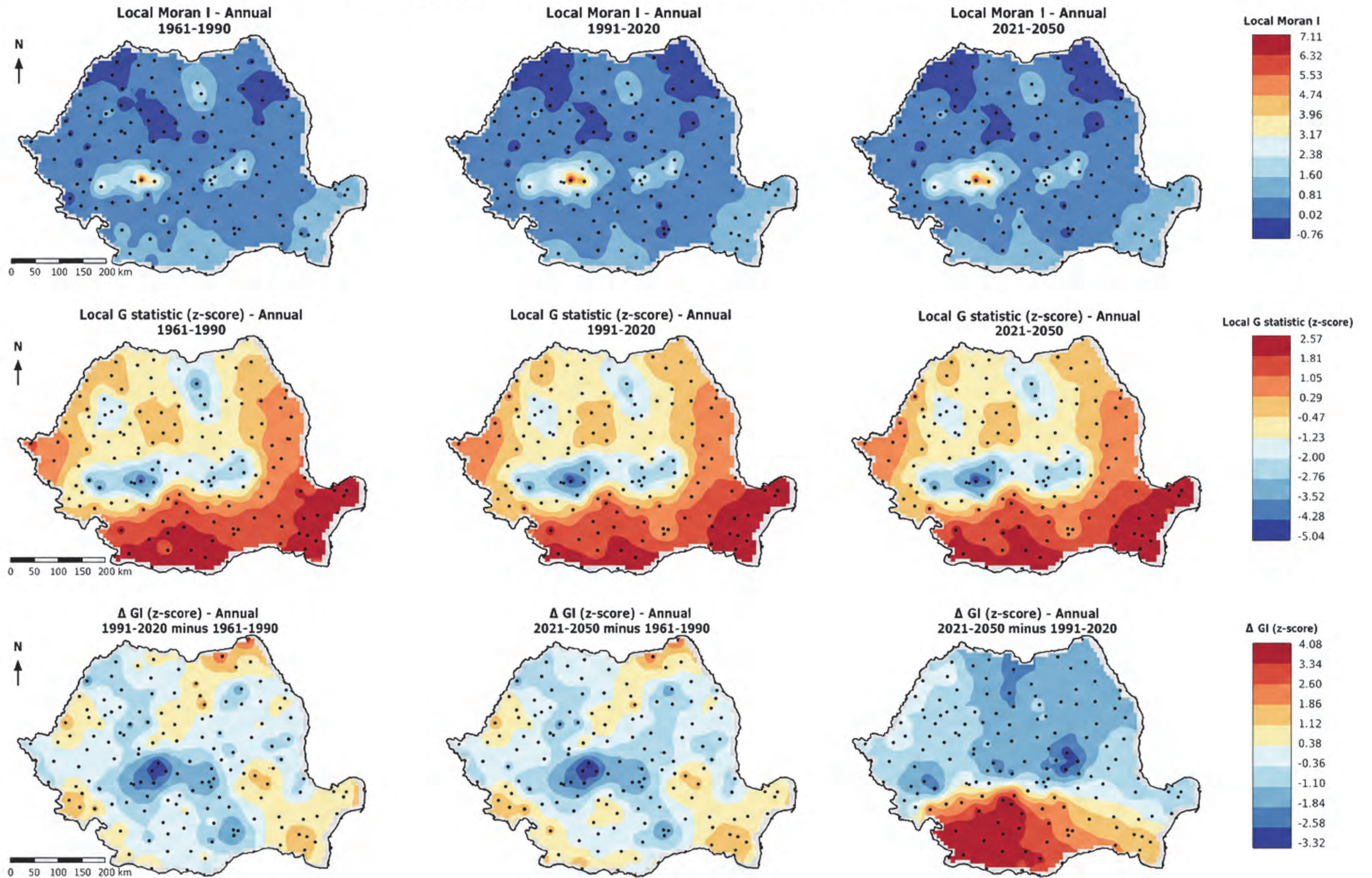
Nebulosity - December - Interpolated maps of spatial indices



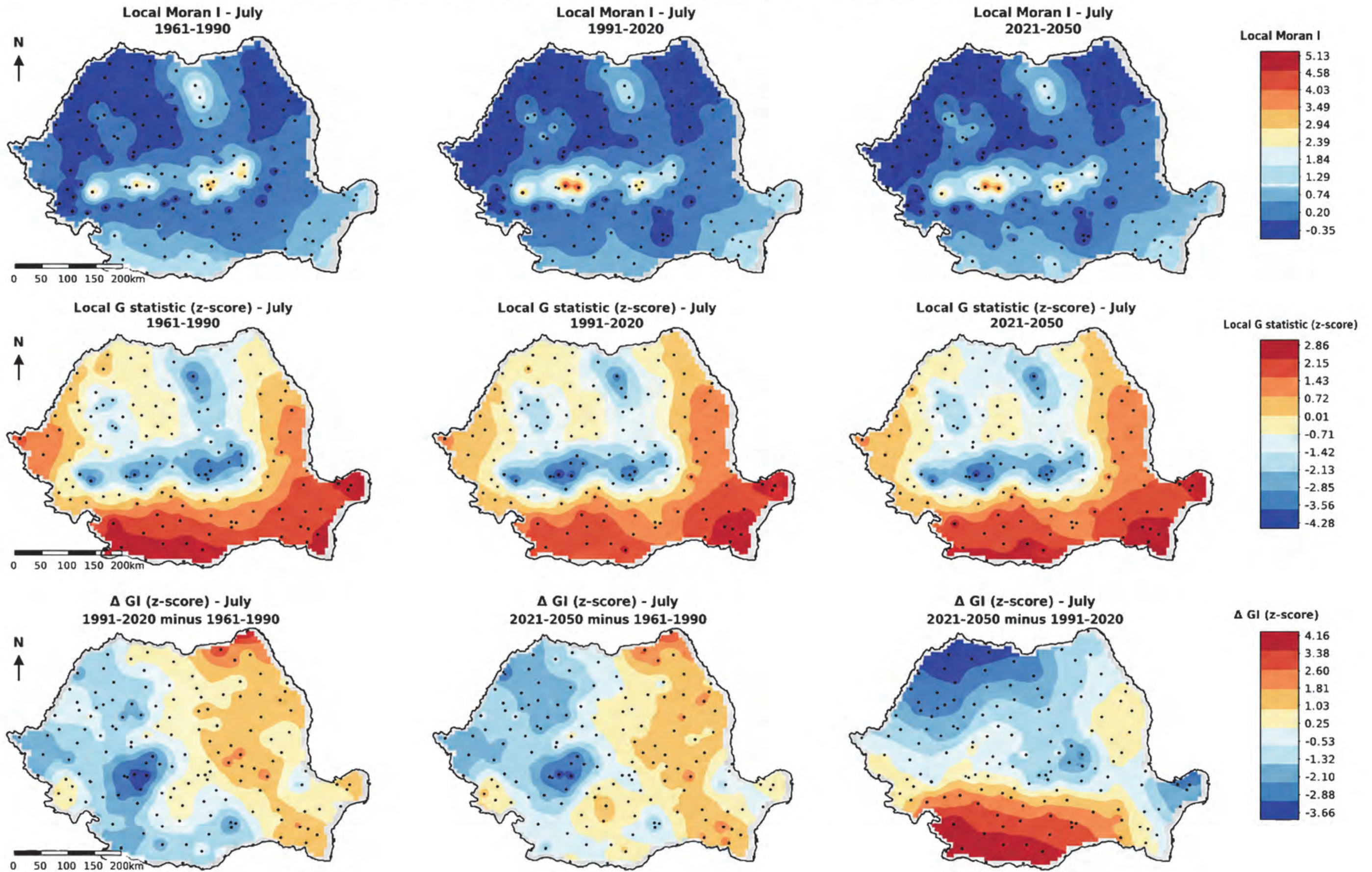
Nebulosity - August - Interpolated maps of spatial indices



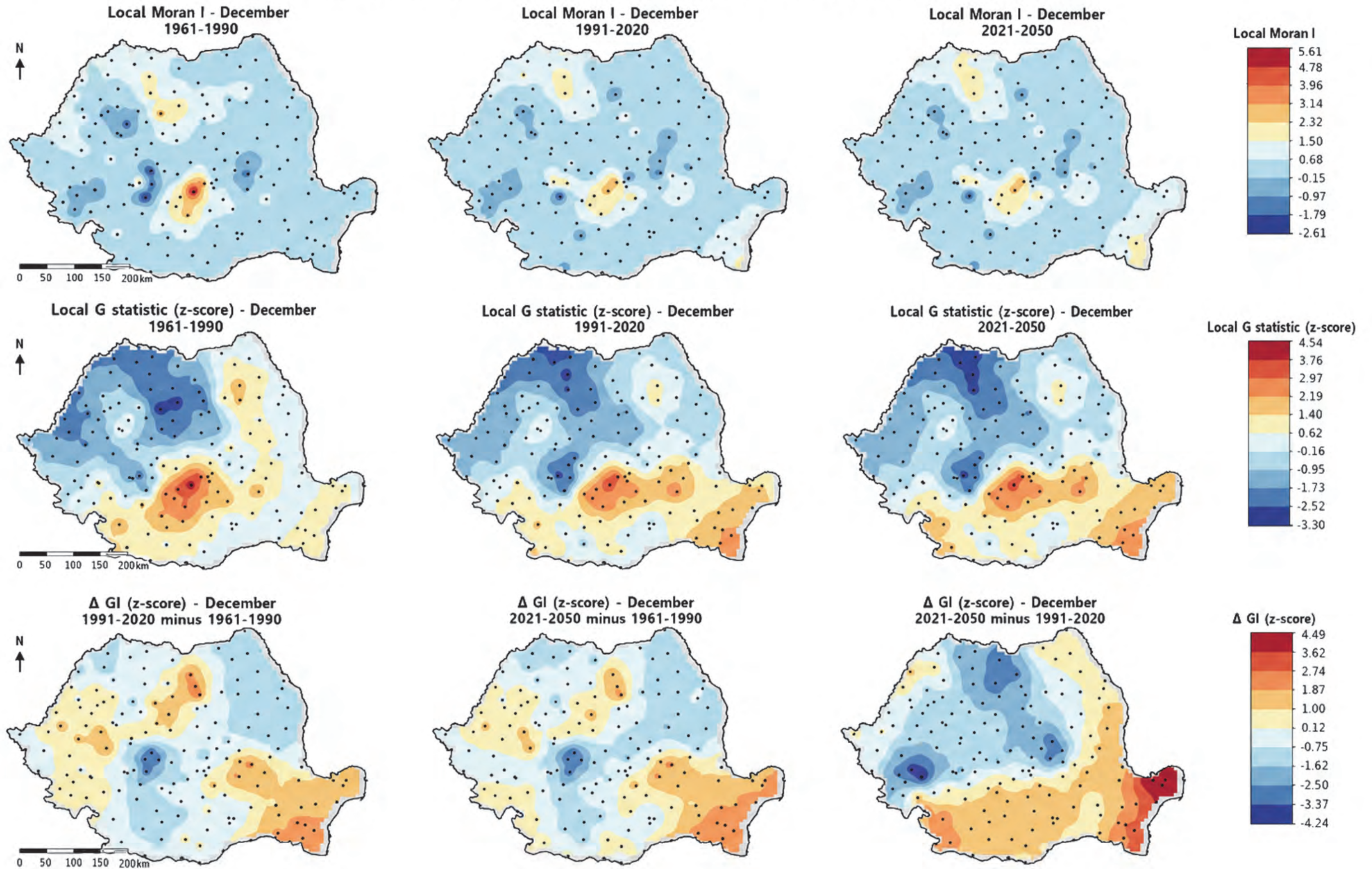
Sunshine Duration - Annual - Interpolated maps of spatial indices



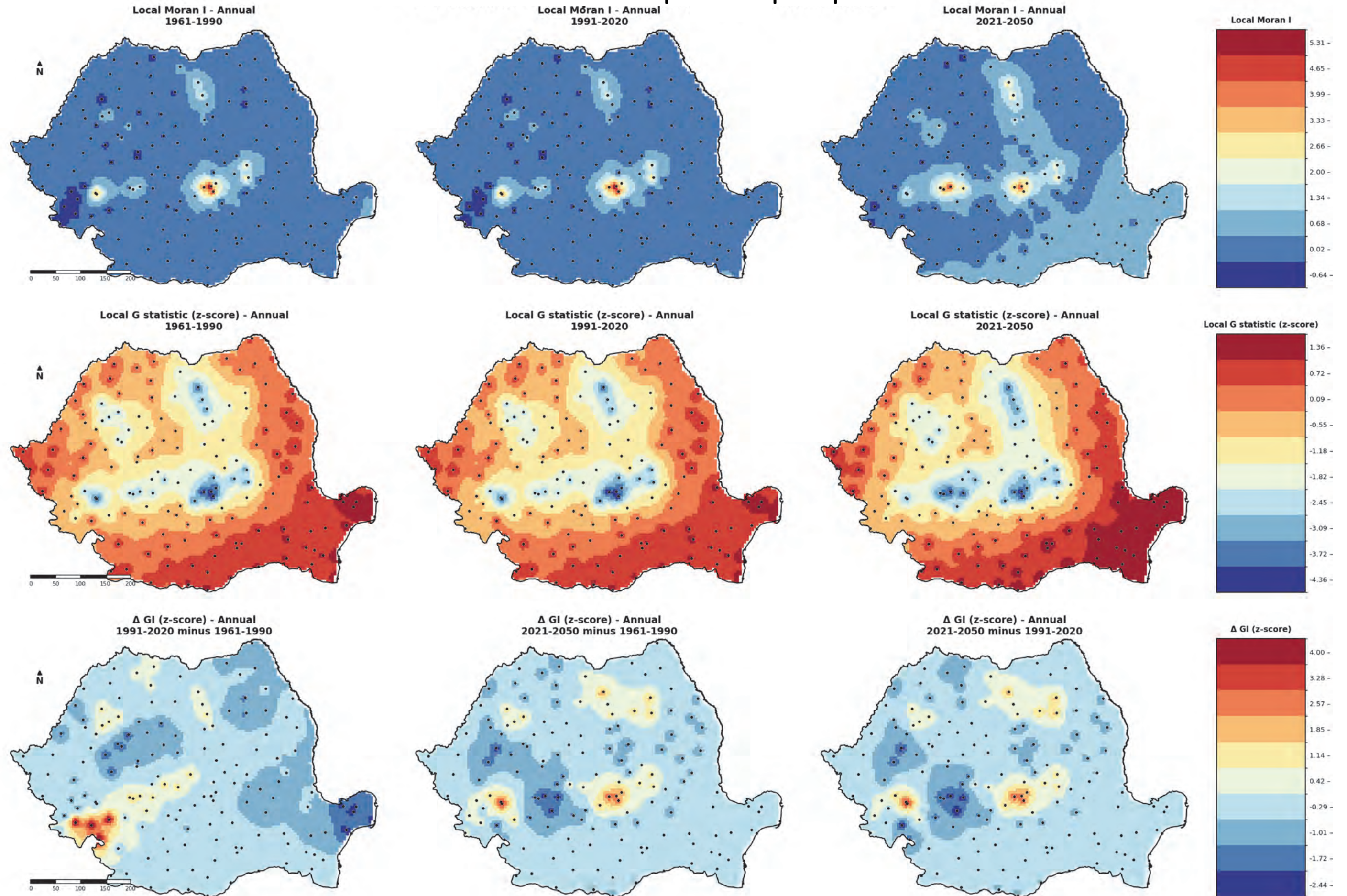
Sunshine Duration - July - Interpolated maps of spatial indices



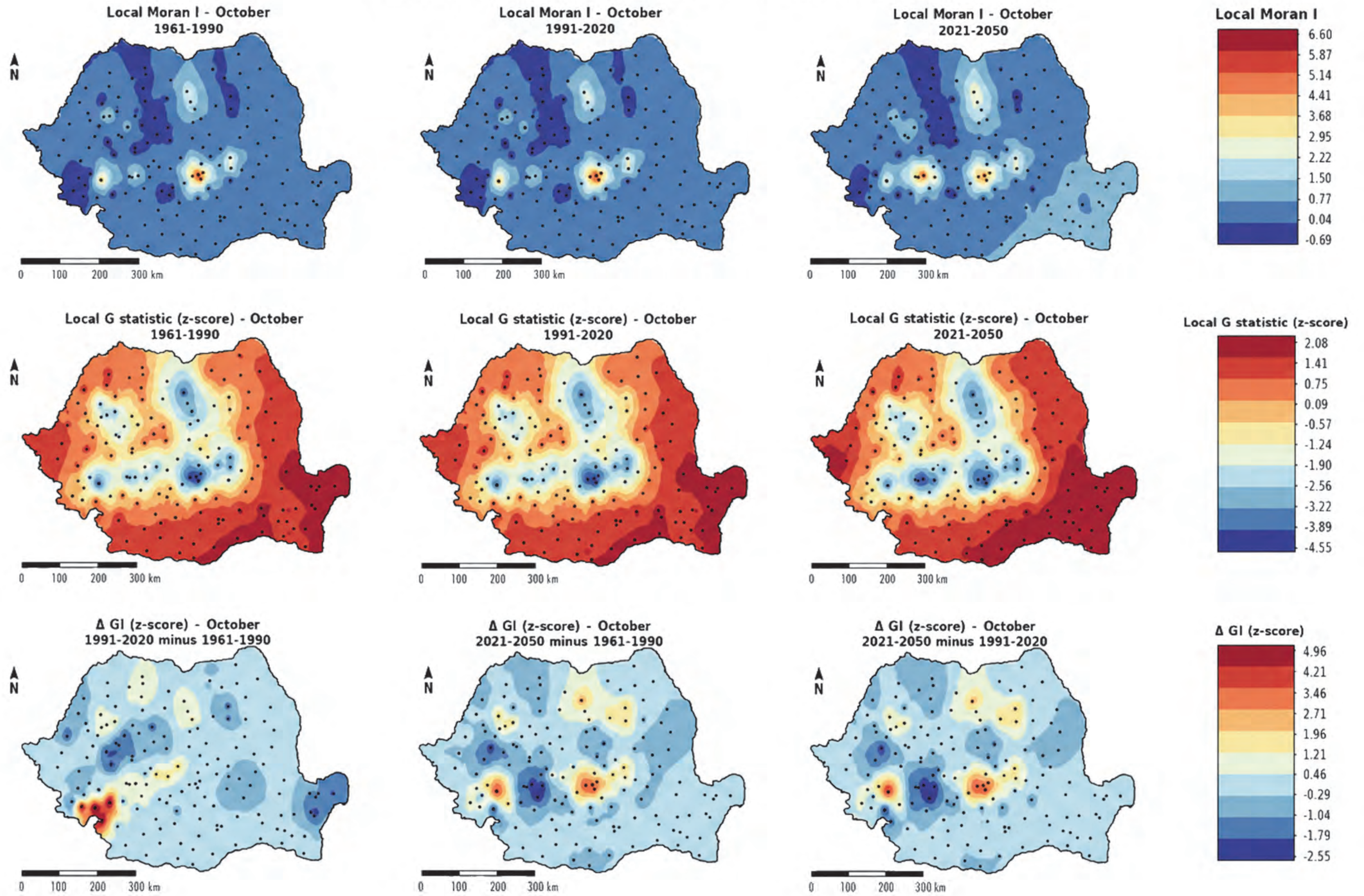
Sunshine Duration - December - Interpolated maps of spatial indices



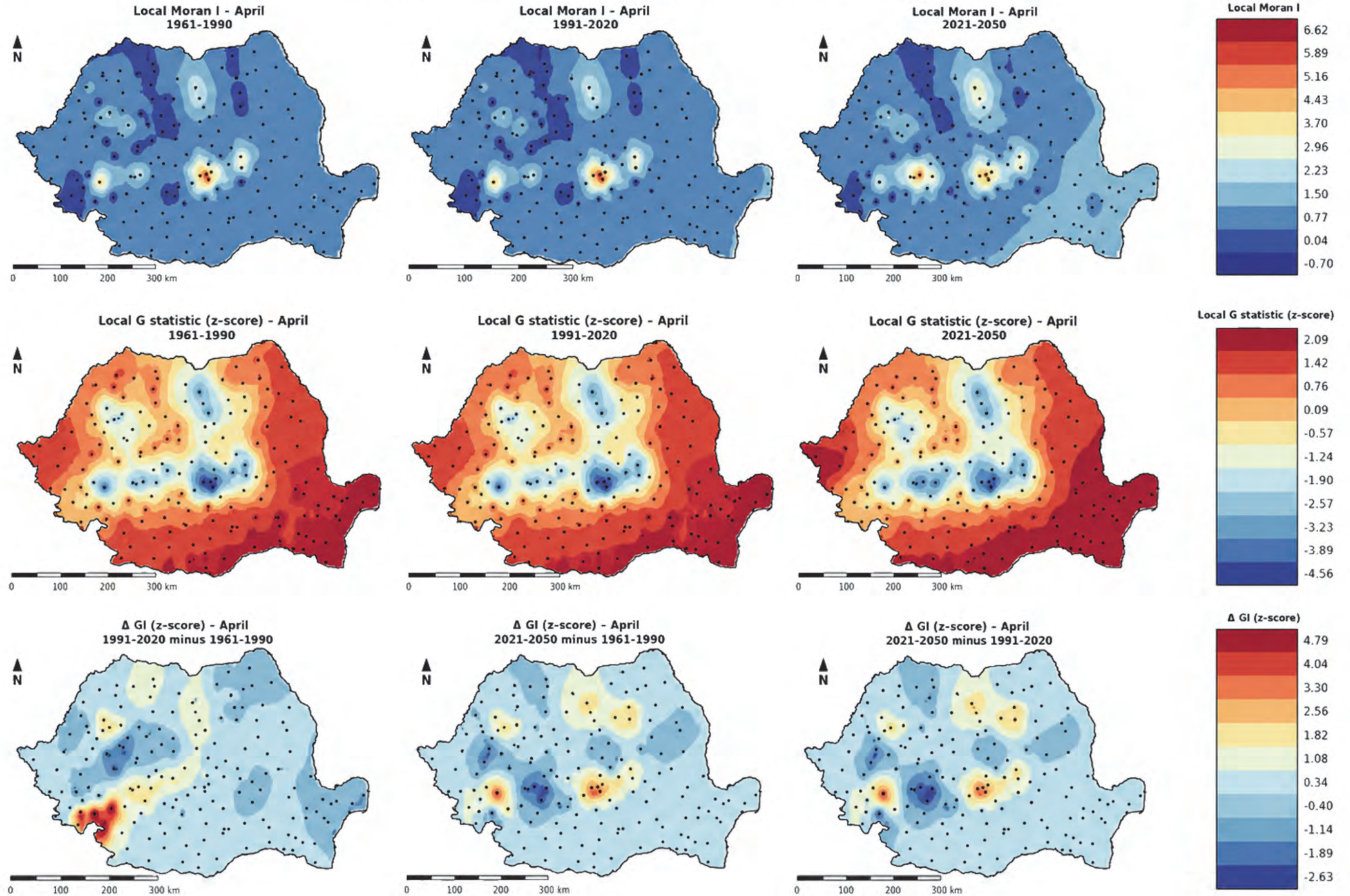
Air Pression – Annual – Interpolated maps of spatial



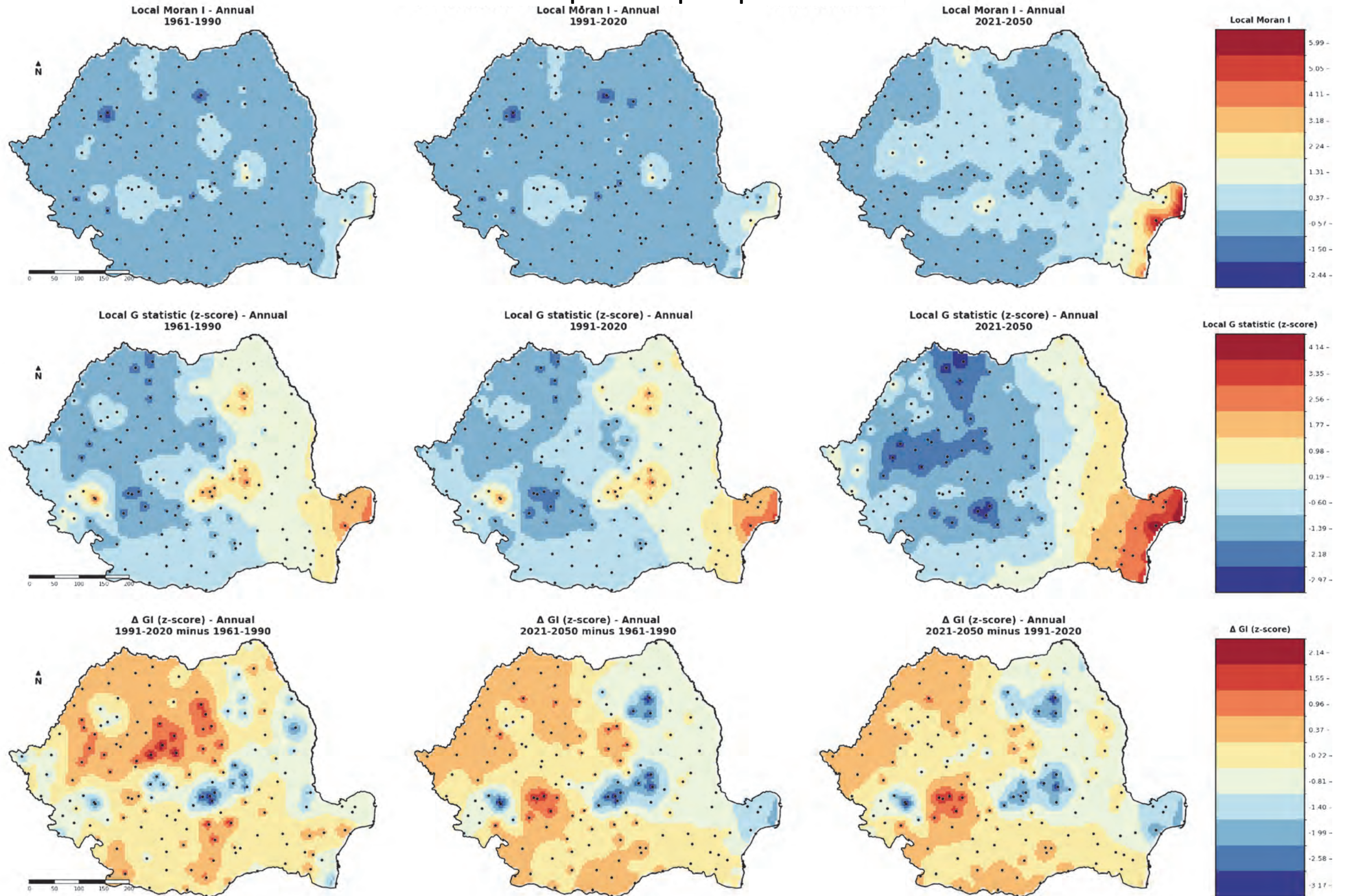
Air Pression – October – Interpolated maps of spatial



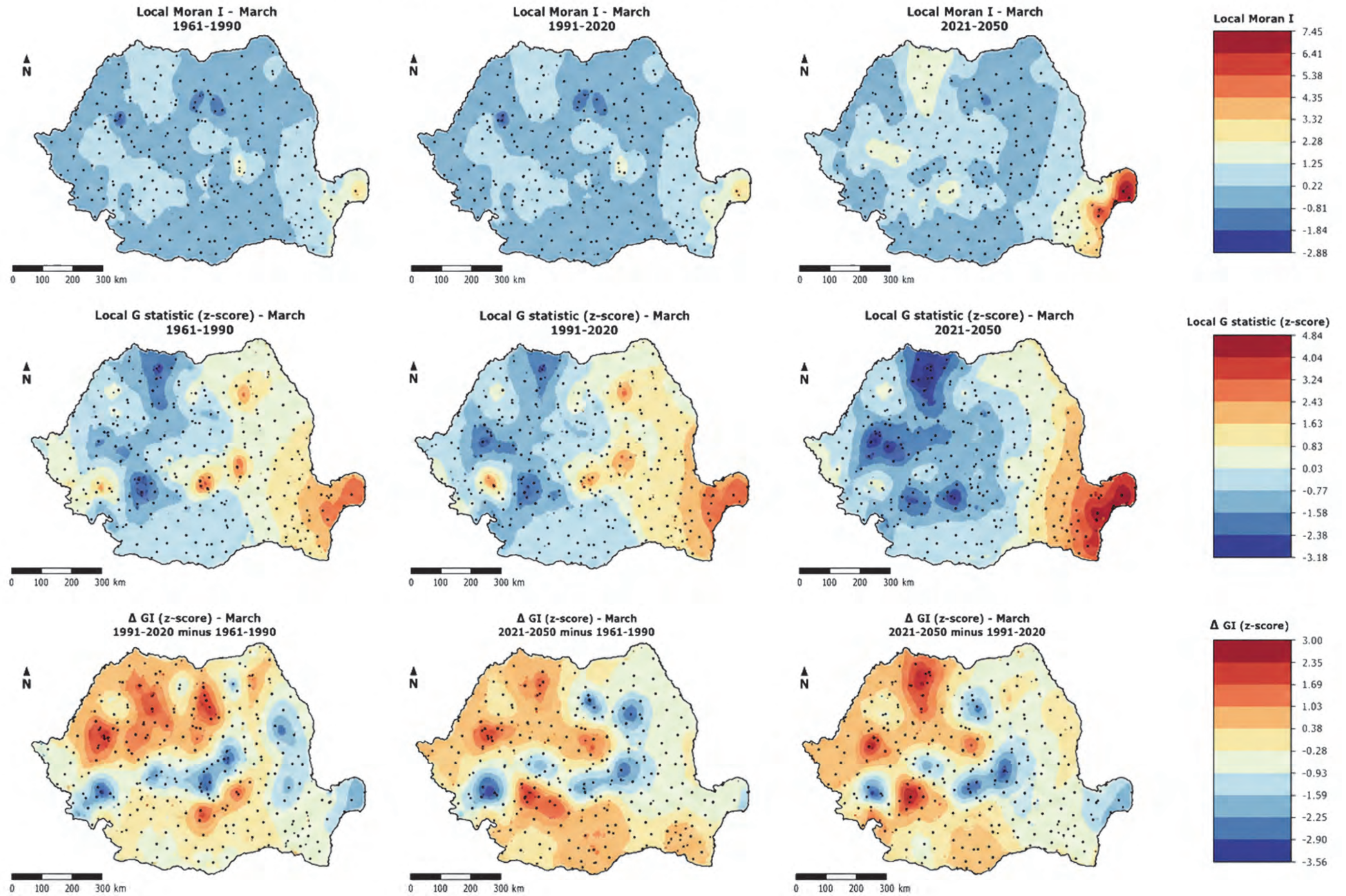
Air Pression – April – Interpolated maps of spatial indices



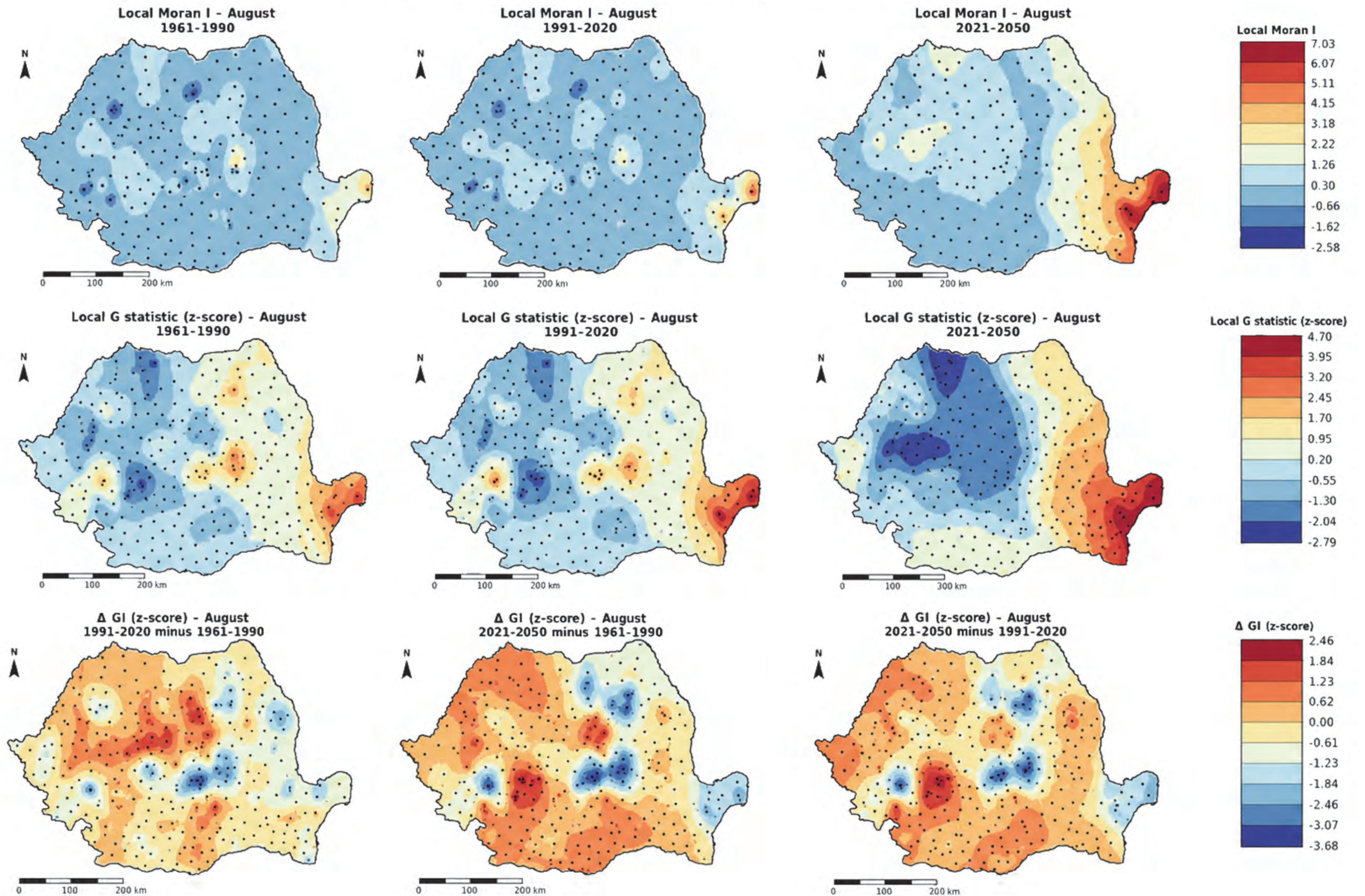
Wind – Annual – Interpolated maps of spatial indices



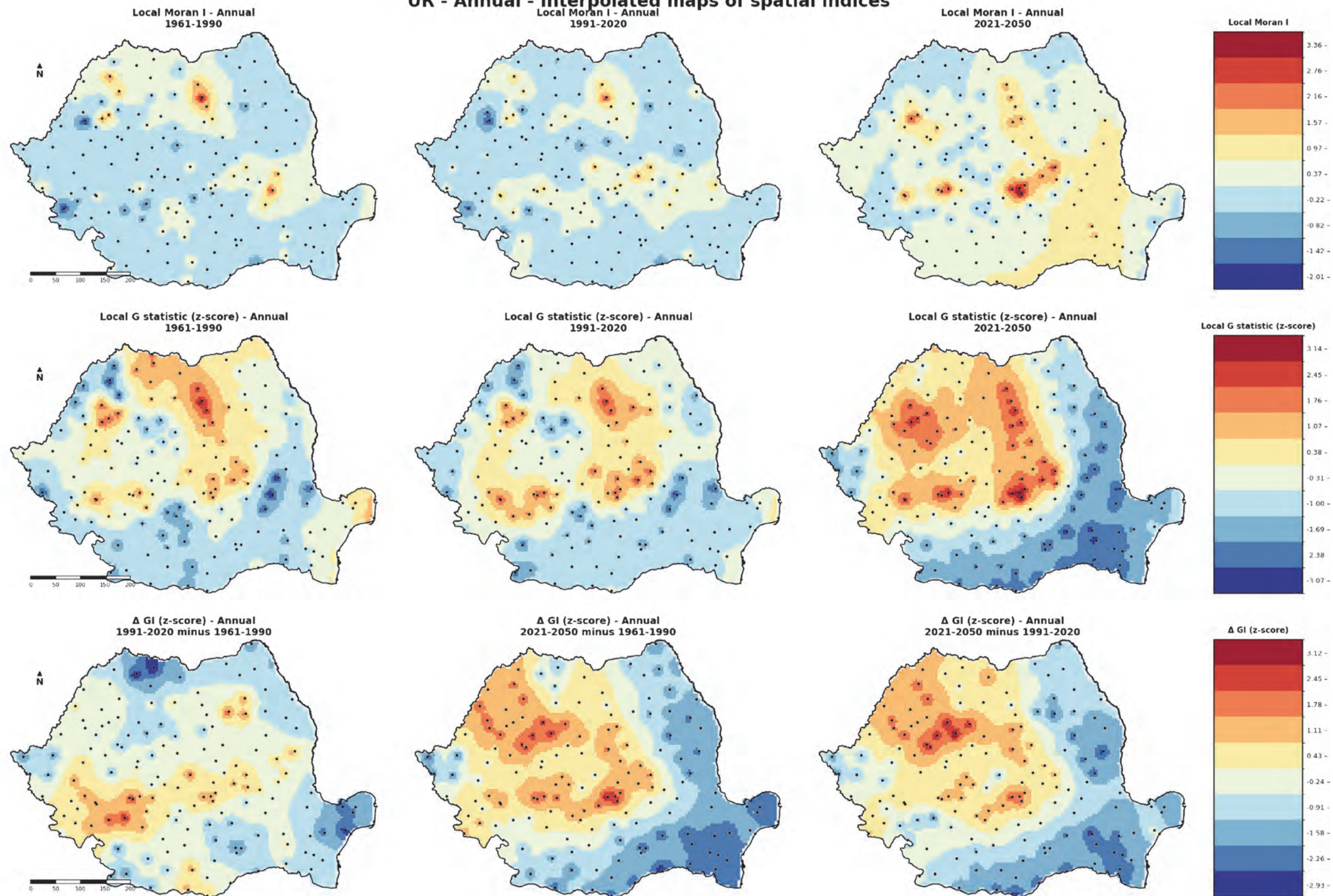
Wind – March – Interpolated maps of spatial indices



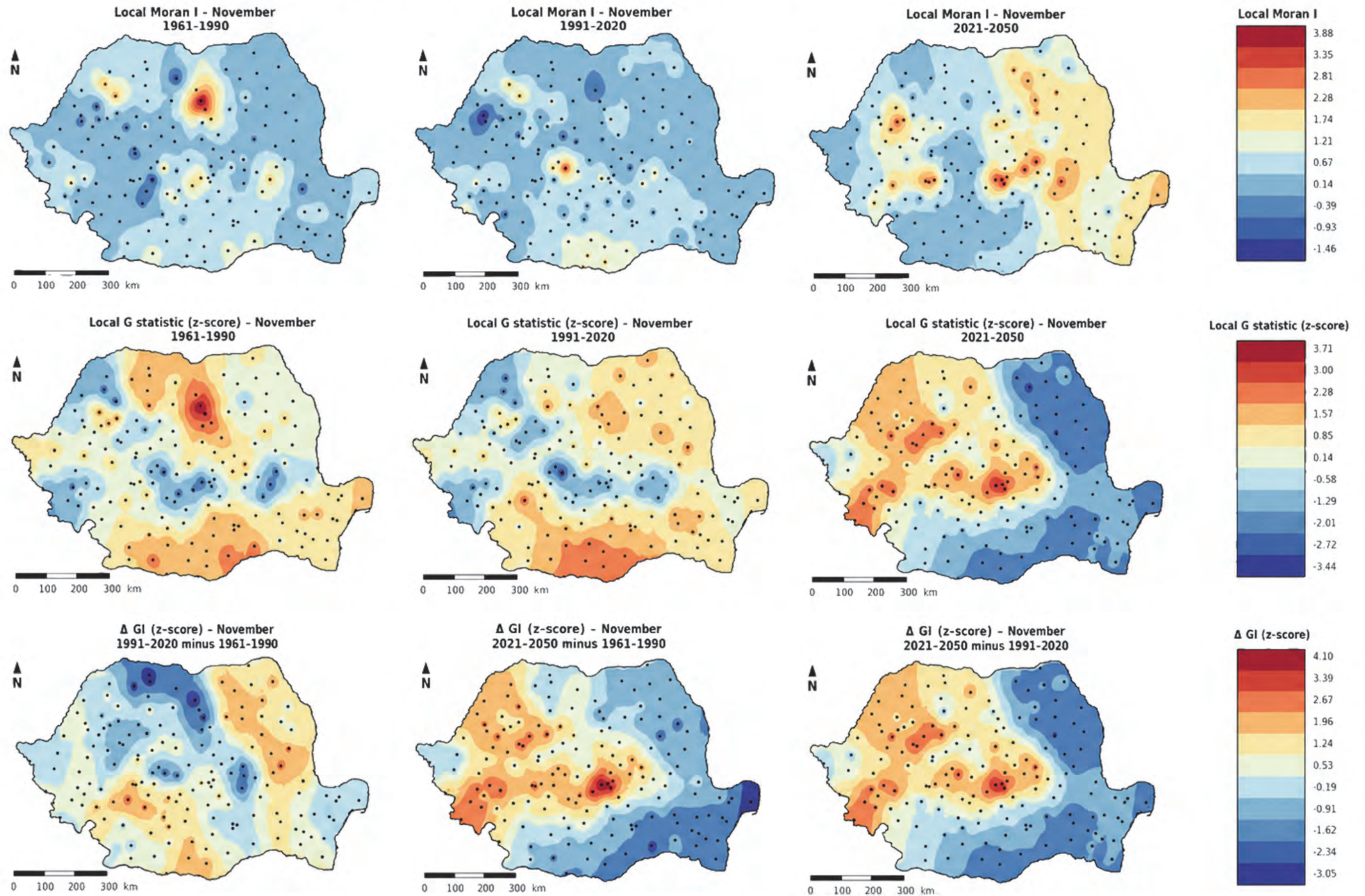
Wind – August – Interpolated maps of spatial indices



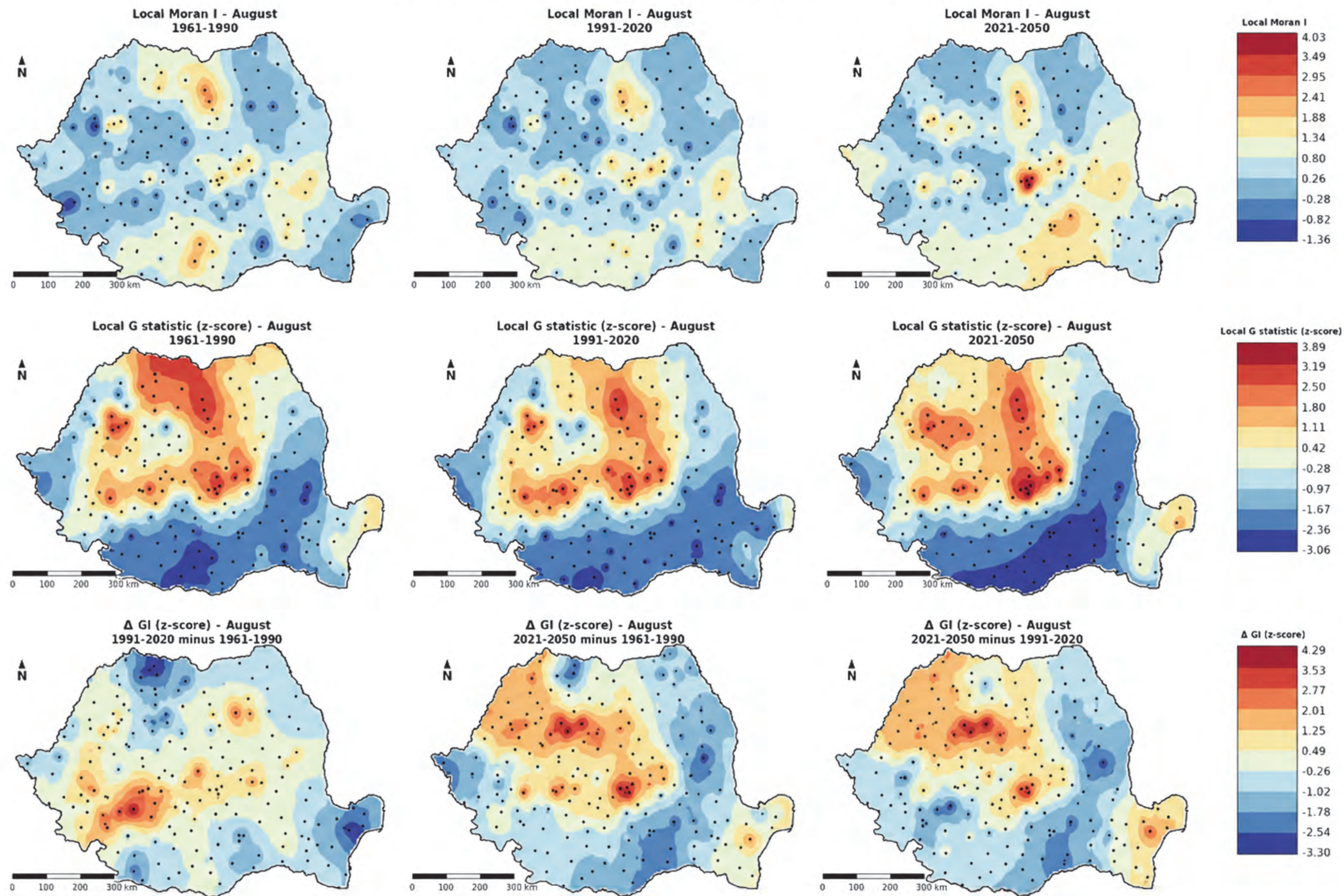
UR - Annual - Interpolated maps of spatial indices



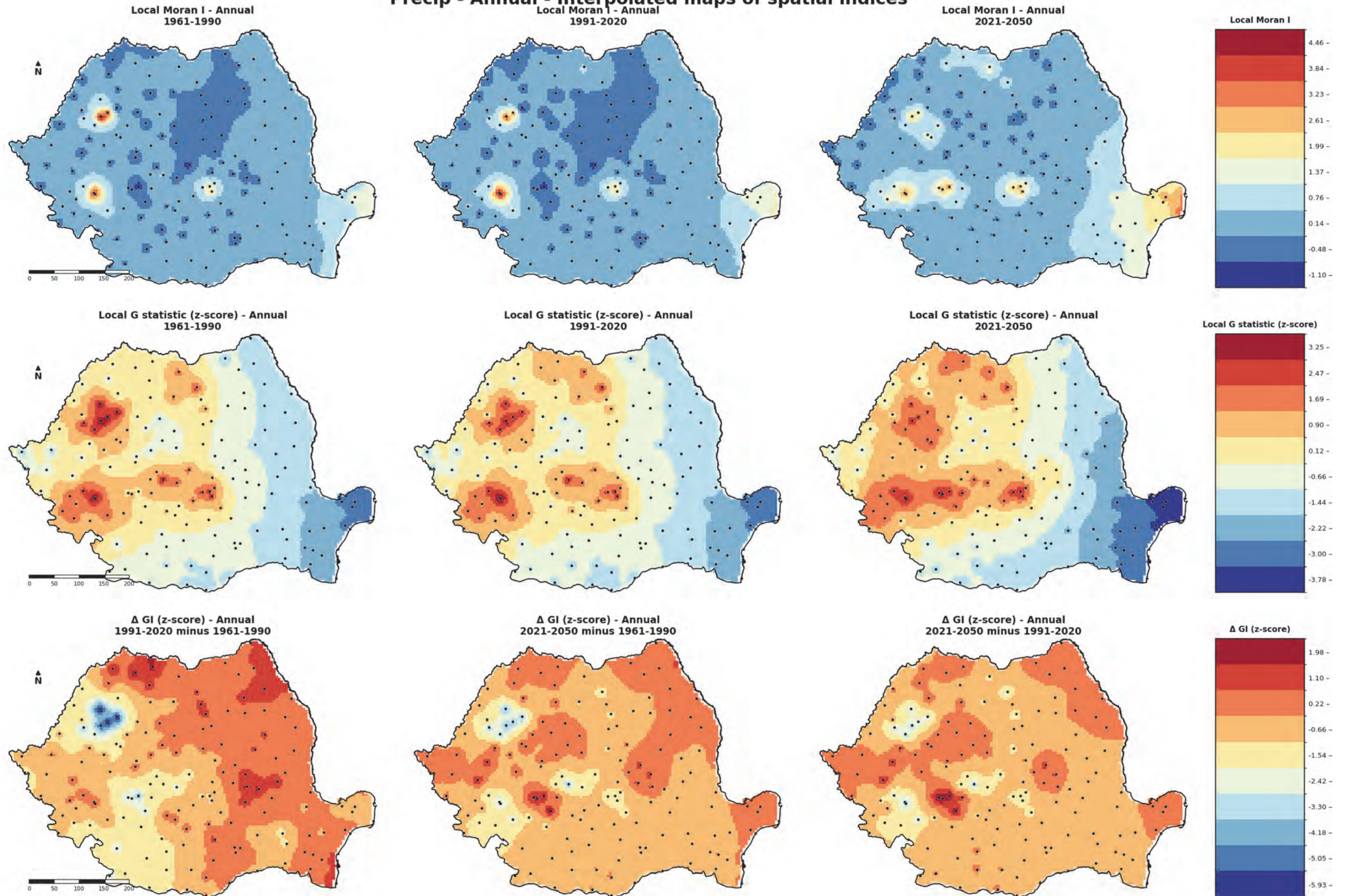
UR - November - Interpolated maps of spatial indices



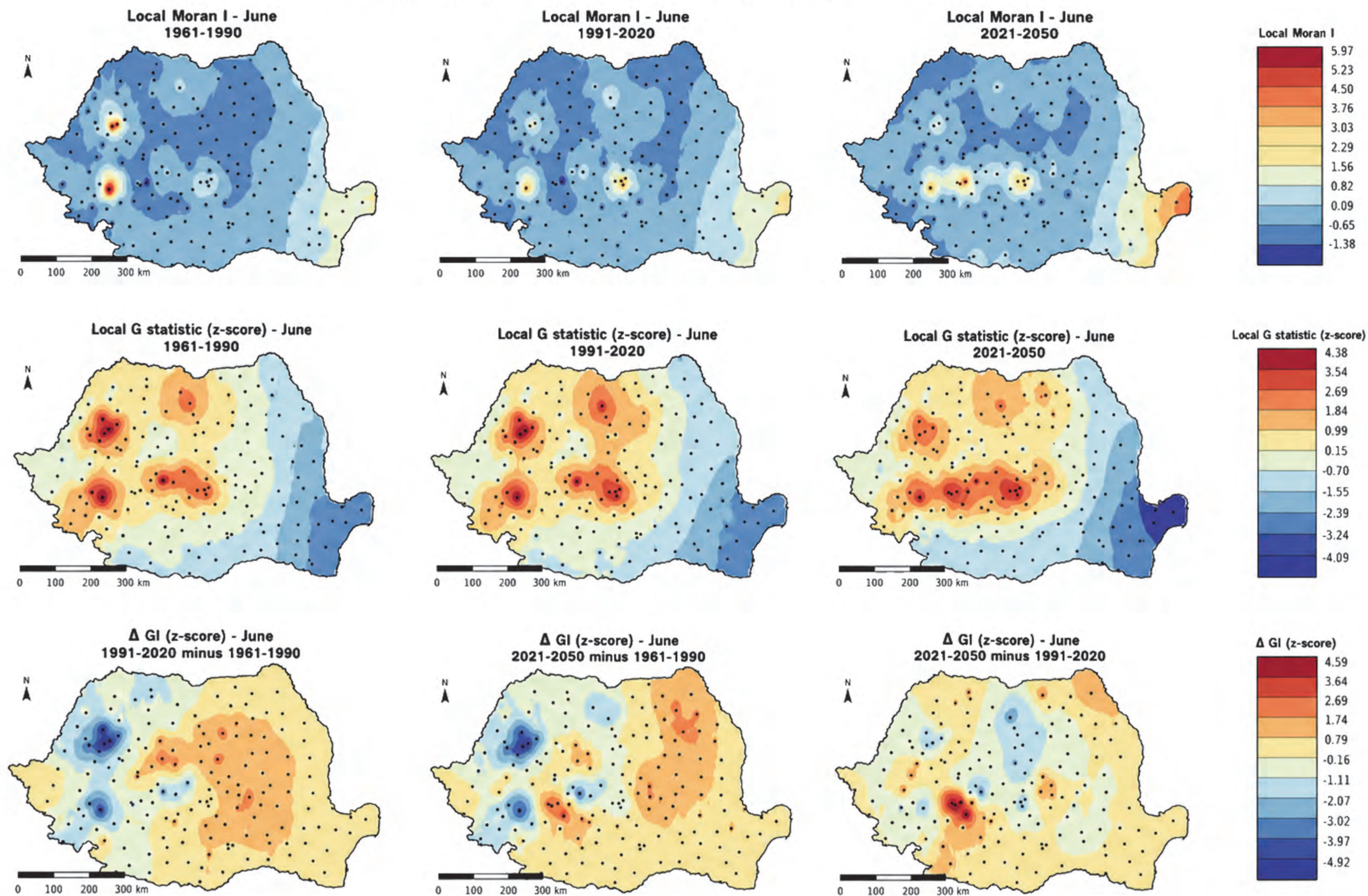
UR - August - Interpolated maps of spatial indices



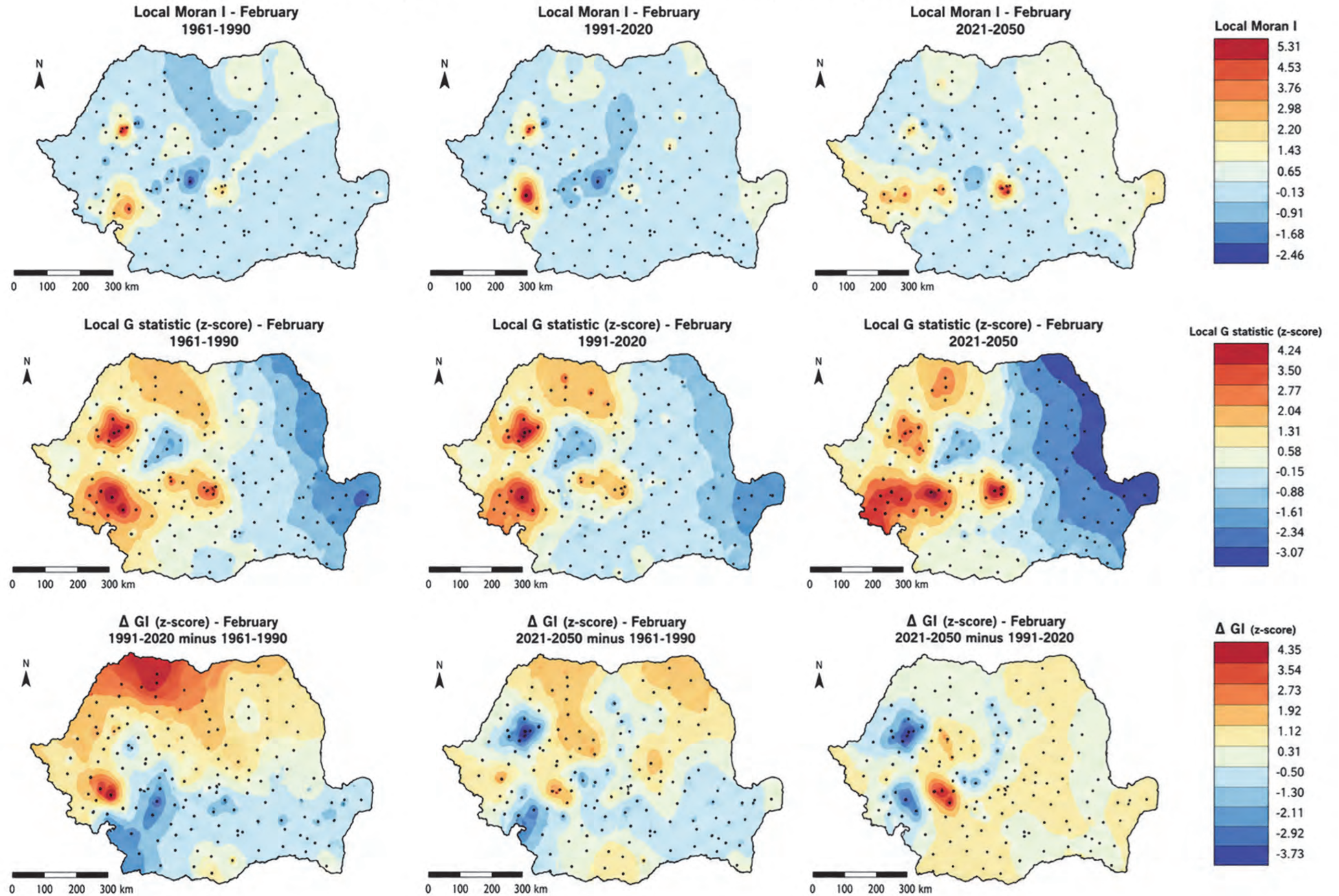
Precip - Annual - Interpolated maps of spatial indices



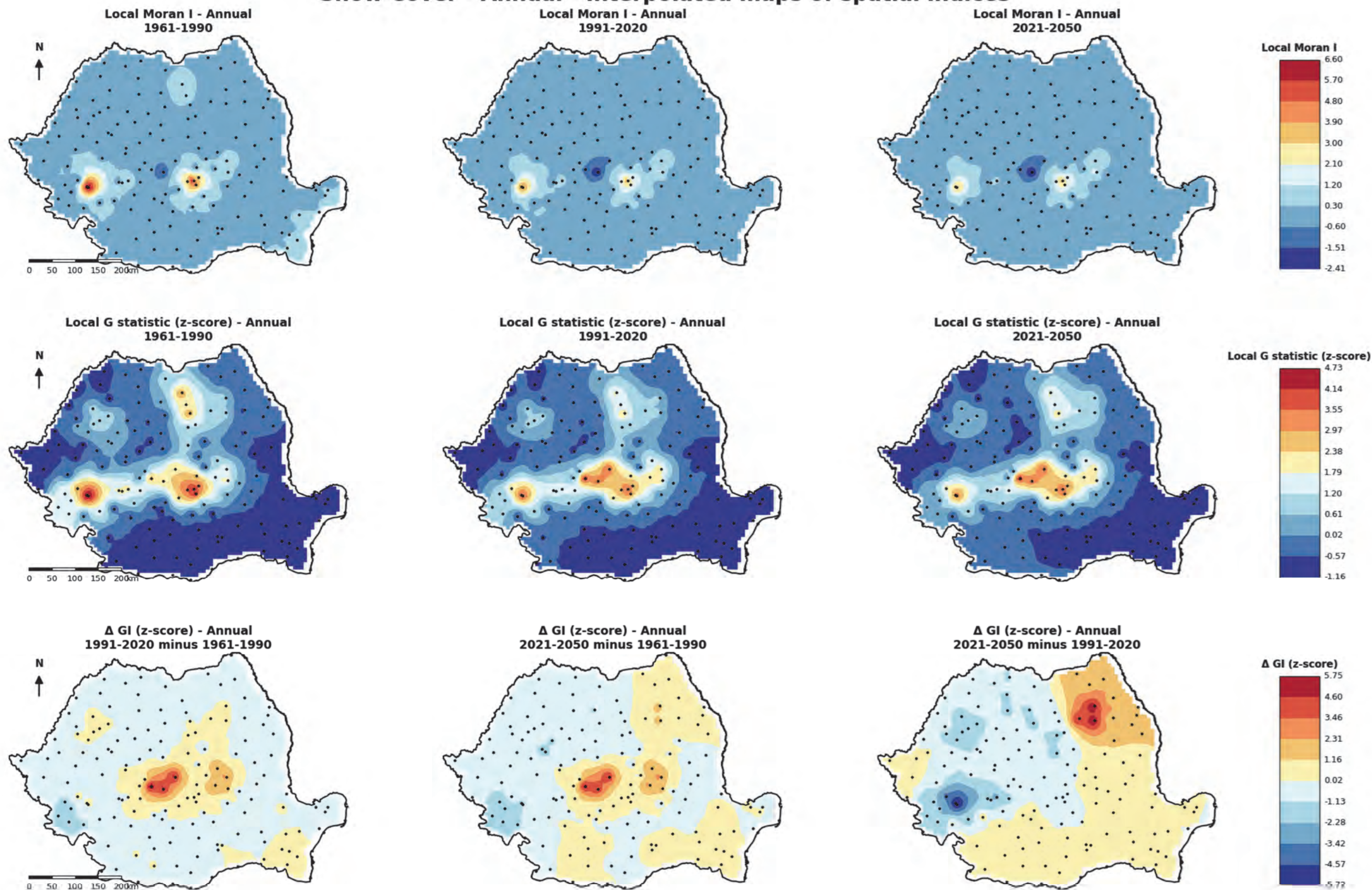
Precip - June - Interpolated maps of spatial indices



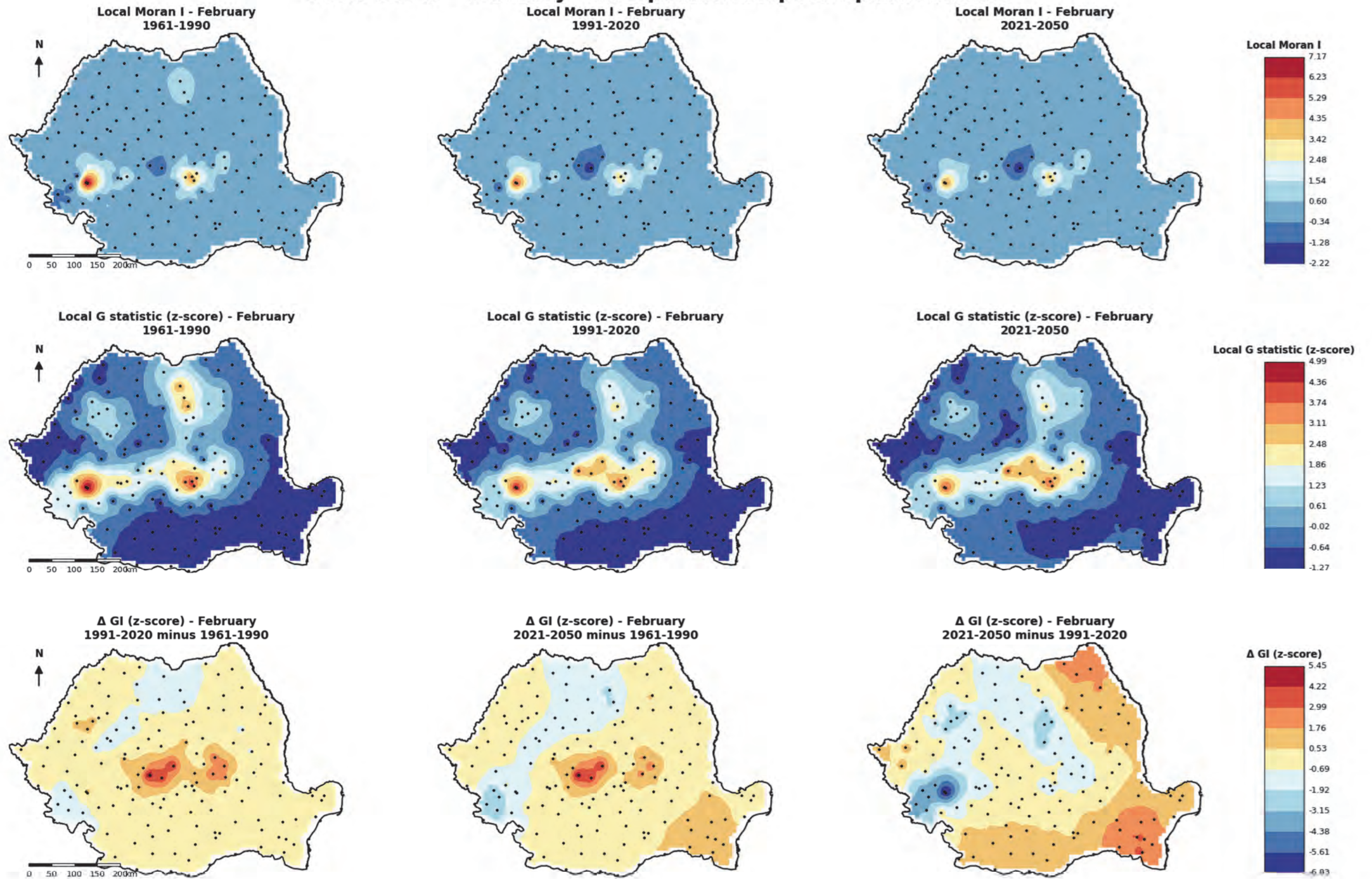
Precip - February - Interpolated maps of spatial indices



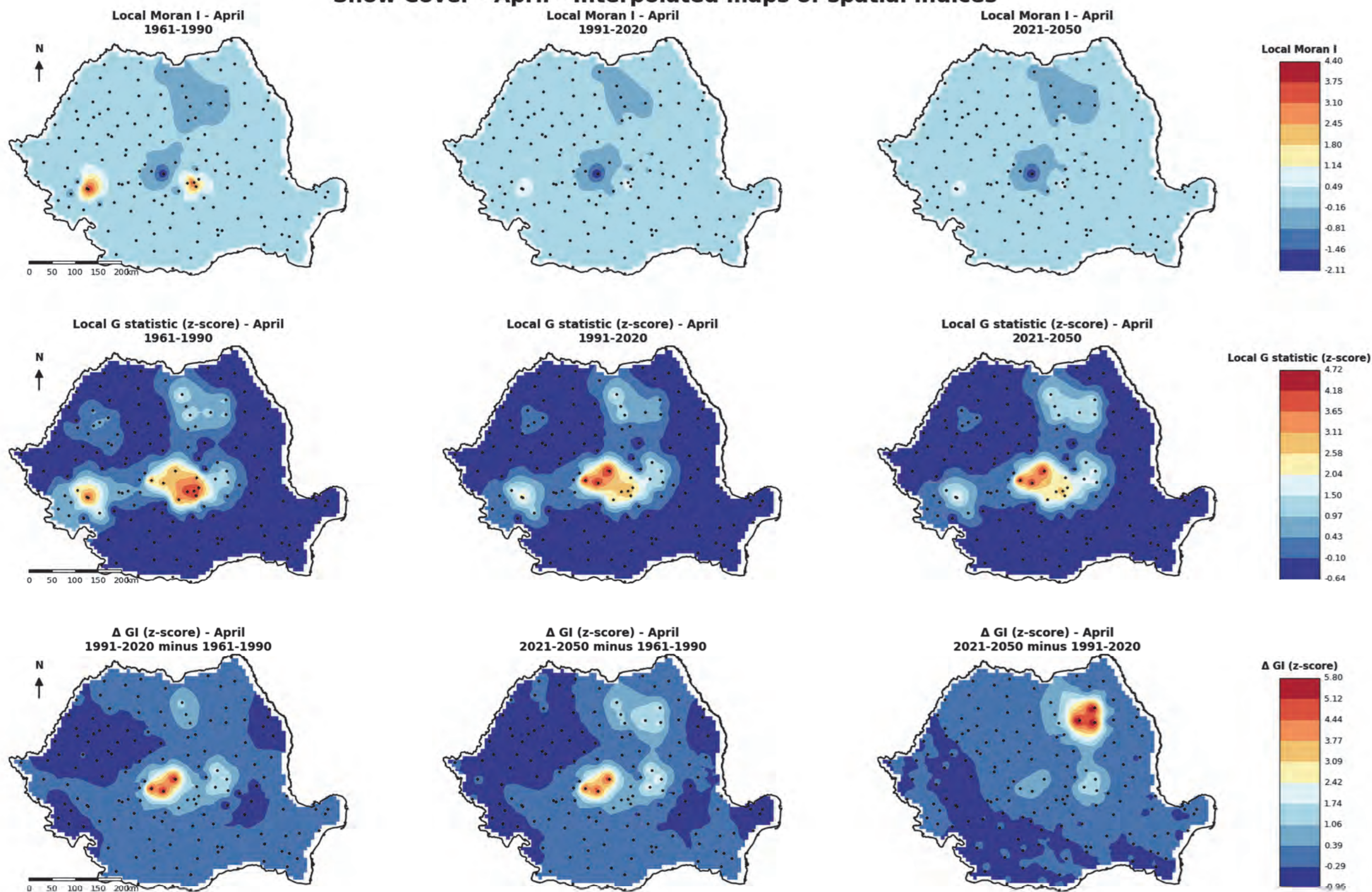
Snow Cover - Annual - Interpolated maps of spatial indices



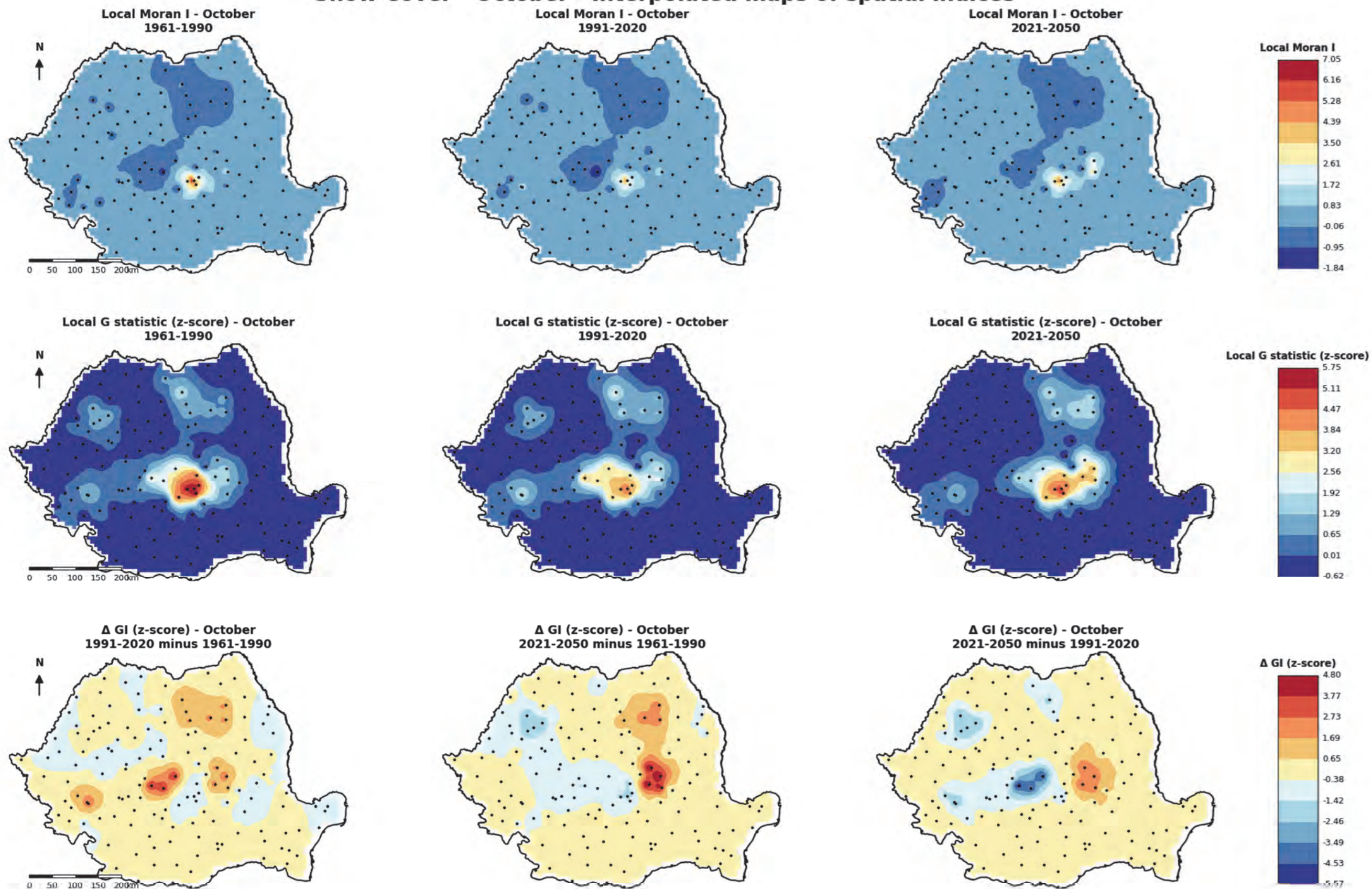
Snow Cover - February - Interpolated maps of spatial indices



Snow Cover - April - Interpolated maps of spatial indices



Snow Cover - October - Interpolated maps of spatial indices



EXPLANATION

Spatial indices add important supplementary information: they no longer describe only the climatic value or the area occupied by a class, but the spatial organization of values, namely autocorrelation, regional coherence, the concentration of hot spots and cold spots, and the change of these cores from one period to another.

5.1. The role of spatial indices: autocorrelation, hot spot, cold spot, and ΔGI

Local Moran I, Local G, and ΔGI add a structural dimension to map interpretation. Local Moran I highlights local autocorrelation: areas where values are similar to their neighborhoods have positive values and form coherent cores. These cores frequently occur in mountains, at relief contacts, in depressions, or in highly homogeneous plains. Negative values indicate transition areas or local contrasts, such as mountain-Subcarpathian contacts, plateau margins, or valley corridors.

The Local G statistic delineates hot spots and cold spots. Their meaning depends on the parameter analyzed. For temperature, a hot spot means warm values; for humidity, precipitation, cloudiness, or snow, a hot spot means high values of those parameters, not warm areas. This clarification is essential for the atlas: the Carpathians are thermal cold spots, but hot spots of humidity, precipitation, cloudiness, and snow. The plains are thermal and radiative hot spots, but cold spots of humidity and precipitation.

ΔGI expresses the difference between Local G z-scores and is useful for seeing where clusters reorganize. A positive value indicates the strengthening or displacement of a hot spot, or the weakening of a cold spot; a negative value indicates the weakening of a hot spot or the strengthening of a cold spot. Therefore, ΔGI is not interpreted as a direct difference in °C, mm, hPa, hours, or cm, but as a change in spatial coherence. This explains why some plains may show lower ΔGI for temperature in the projection: they were already thermal hot spots, and the additional signal shifts toward mountain flanks and transition zones.

For temperatures, the indices show a relatively stable structure, with hot spots in low areas and cold spots in mountains, but with thresholds rising altitudinally. For cloudiness and sunshine duration, the indices confirm the reduction of cloudy areas and the consolidation of insolation in the south, southeast, and west. For pressure, the indices are dominated by relief and show small changes. For wind, Local G and ΔGI indicate major reorganizations in Dobrogea, the Danube Delta, the coast, corridors, and ridges. For humidity and precipitation, the indices show the strengthening of the contrast between dry lowlands and humid mountain cores. For snow, changes are more evident in transition months and at medium altitudinal steps.

5.2. Comparison between parameters and regions

The differences 1991-2020 minus 1961-1990 should be interpreted as the observed change of the recent climate compared with the reference period. They show a relatively coherent signal: increasing temperatures, especially minimum temperatures, increasing sunshine duration, decreasing cloudiness over large areas, and decreasing relative humidity. During this interval, precipitation changes less at national scale than temperature or humidity, but relevant regional contrasts appear, and snow cover shows a polarization between high elevations and low-medium altitudinal steps.

EXPLICAȚII

Indicii spațiali adaugă informații suplimentare importante: ei nu mai descriu doar valoarea climatică sau suprafața ocupată de o clasă, ci organizarea spațială a valorilor, respectiv autocorelația, coerența regională, concentrarea hot spot-urilor și cold spot-urilor și schimbarea acestor nuclee de la o perioadă la alta.

5.1. Rolul indicilor spațiali: autocorelație, hot spot, cold spot și ΔGI

Local Moran I, Local G și ΔGI adaugă o dimensiune structurală interpretării hărților. Local Moran I evidențiază autocorelația locală: ariile în care valorile sunt similare cu cele din vecinătatea lor au valori pozitive și formează nuclee coerente. Aceste nuclee apar frecvent în munți, la contactele de relief, în depresiuni sau în câmpii foarte omogene. Valorile negative indică arii de tranziție sau contraste locale, cum ar fi contactele munte-Subcarpați, marginile podișurilor sau culoarele de vale.

Statistica Local G delimitează hot spot-urile și cold spot-urile. Semnificația lor depinde de parametrul analizat. Pentru temperatură, un hot spot înseamnă valori ridicate, adică arii calde; pentru umiditate, precipitații, nebulozitate sau zăpadă, un hot spot înseamnă valori ridicate ale acestor parametri, nu arii calde. Această precizare este esențială pentru atlas: Carpații sunt cold spot-uri termice, dar hot spot-uri de umiditate, precipitații, nebulozitate și zăpadă. Câmpiile sunt hot spot-uri termice și radiative, dar cold spot-uri de umiditate și precipitații.

ΔGI exprimă diferența dintre scorurile z Local G și este util pentru a observa unde se reorganizează grupările. O valoare pozitivă indică întărirea sau deplasarea unui hot spot ori slăbirea unui cold spot; o valoare negativă indică slăbirea unui hot spot sau întărirea unui cold spot. Prin urmare, ΔGI nu se interpretează ca diferență directă în °C, mm, hPa, ore sau cm, ci ca schimbare a coerenței spațiale. Aceasta explică de ce unele câmpii pot arăta valori ΔGI mai scăzute pentru temperatură în proiecție: ele erau deja hot spot-uri termice, iar semnalul suplimentar se deplasează spre versanții montani și zonele de tranziție.

Pentru temperaturi, indicii arată o structură relativ stabilă, cu hot spot-uri în zonele joase și cold spot-uri în munți, dar cu praguri care urcă altitudinal. Pentru nebulozitate și durata de strălucire a Soarelui, indicii confirmă reducerea ariilor noroase și consolidarea insolației în sud, sud-est și vest. Pentru presiune, indicii sunt dominați de relief și arată schimbări mici. Pentru vânt, Local G și ΔGI indică reorganizări majore în Dobrogea, Delta Dunării, litoral, culoare și culmi. Pentru umiditate și precipitații, indicii arată accentuarea contrastului dintre câmpiile uscate și nucleele montane umede. Pentru zăpadă, schimbările sunt mai evidente în lunile de tranziție și la trepte altitudinale medii.

5.2. Comparație între parametri și regiuni

Diferențele 1991-2020 minus 1961-1990 trebuie interpretate ca schimbarea observată a climatului recent față de perioada de referință. Ele arată un semnal relativ coerent: creșterea temperaturilor, mai ales a temperaturilor minime, creșterea duratei de strălucire a Soarelui, scăderea nebulozității pe suprafețe mari și scăderea umidității relative. În acest interval, precipitațiile se modifică mai puțin la scară națională decât temperatura sau umiditatea, dar apar contraste regionale relevante, iar stratul de zăpadă arată o polarizare între altitudinile mari și treptele altitudinale joase-medii.

The differences 2021-2050 minus 1991-2020 should be treated as a projected signal. They are more heterogeneous for temperatures and stronger for humidity, wind, and precipitation. For temperature, part of the country is already within warm classes in 1991-2020, so the projection is often expressed by the displacement of thresholds with altitude and by the expansion of intermediate classes, not only by the increase of the warmest class. For humidity, by contrast, the projection massively changes the spatial classification of the territory: dry classes become dominant over very large areas.

Table 3. Comparative synthesis of climatic parameters, combining annual values, maximum/minimum months, and spatial indices.

Parameter	Dominant annual/monthly signal	Main hot spot / cold spot	Magnitude of change
Mean temperature	>12 °C: 6 -> 9,304 -> 16,508 km ² ; July >22 °C and January >0 °C increase strongly	hot: plains, Dobrogea, Danube Delta; cold: Carpathians and depressions	large in value, medium in spatial reorganization
Maximum temperature	July >30 °C: 7 -> 47,422 -> 48,822 km ² ; January >3 °C becomes very extensive	hot: Romanian Plain, western areas, Dobrogea, low Moldavia; cold: mountains	large, relevant for daytime heat stress
Minimum temperature	annual >6 °C: 28,440 -> 86,867 -> 99,866 km ² ; frost contracts drastically	hot: south, west, coastline; cold: depressions and mountains	highly relevant for warm nights and frost
Cloudiness	reduction of very cloudy classes; August <3.5 tenths increases to 66,677 km ²	hot: mountains/north; cold: southeast and plains	medium, but consistent with insolation
Sunshine duration	annual >2,200 h: 7,049 -> 63,479 -> 74,414 km ² ; July >300 h increases	hot: Romanian Plain, Dobrogea, Danube Delta; cold: Carpathians	large and spatially very coherent
Atmospheric pressure	moderate redistributions between >1,000 and 950-1,000 hPa	hot: low areas; cold: Carpathians	small, dominated by altitude
Wind speed	the projection expands the medium classes: 3-4 m/s annually reaches 132,575 km ²	hot: Dobrogea, Danube Delta, coast, ridges; cold: depressions/sheltered areas	very large, but with modeling uncertainty
Relative humidity	annual <75%: 2,830 -> 23,565 -> 171,069 km ² ; August <60% reaches 176,378 km ²	hot: mountains/north; cold: south, east, Dobrogea, Danube Delta	largest and clearest change
Precipitation	700-1,000 mm decreases to 23,005 km ² ; June and February become drier	hot: Carpathians/Apuseni Mountains; cold: Dobrogea, Danube Delta, southeast	large, with high hydrological risk
Snow cover	small annual change at national scale, but mobile snow-cover thresholds	hot: Carpathians; cold: plains, Dobrogea, Danube Delta	medium annually, large seasonally and altitudinally

Note for Table 3. 'High values' and 'low values' refer to the specific parameter analyzed. Therefore, for humidity, precipitation, cloud cover, or snow, a core of high values does not indicate a warm area, but rather an area with high values of that particular parameter.

The difference 2021-2050 minus 1961-1990 expresses the total signal. It is the most useful for atlas conclusions because it shows climatic transformation over almost a century. In this reading, Romania shifts toward higher thermal classes, higher insolation classes, lower relative-humidity classes, and, in the projection, lower precipitation classes over extensive areas. In the mountains, the total signal is an altitudinal compression of cold, humid, and snow-related classes.

Overall, Romania projected for 2021-2050 under RCP4.5 / CORDEX - ALADIN is warmer, sunnier, and has less humid air in many regions. Not all changes have the same direction or the same robustness: temperature has a robust and easy-to-interpret signal; relative humidity and precipitation are essential for assessing aridization; wind must be read with caution; pressure is dominated by relief; and snow is more relevant through altitudinal thresholds than through total national area. The most appropriate interpretation is not parameter by parameter in isolation, but an integrated one: warming + sunshine increase + decrease in relative humidity + reduction of some pluviometric classes + displacement of snow-cover belts.

Diferențele 2021-2050 minus 1991-2020 trebuie tratate ca semnal proiectat. Ele sunt mai eterogene pentru temperaturi și mai puternice pentru umiditate, vânt și precipitații. Pentru temperatură, o parte a țării se află deja în clase calde în 1991-2020, astfel încât proiecția este adesea exprimată prin deplasarea pragurilor în altitudine și prin extinderea claselor intermediare, nu doar prin creșterea celei mai calde clase. Pentru umiditate, în schimb, proiecția modifică masiv clasificarea spațială a teritoriului: clasele uscate devin dominante pe suprafețe foarte mari.

Tabelul 3. Sinteză comparativă a parametrilor climatici, combinând valorile anuale, lunile de maxim/minim și indicii spațiali.

Parametru	Semnal anual/lunar dominant	Principalele nuclee cu valori ridicate / scăzute	Amploarea schimbării
Temperatura medie	>12 °C: 6 -> 9 304 -> 16 508 km ² ; valorile din iulie >22 °C și din ianuarie >0 °C cresc puternic	valori ridicate: câmpii, Dobrogea, Delta Dunării; valori scăzute: Carpații și depresiunile	mare ca valoare, medie ca reorganizare spațială
Temperatura maximă	iulie >30 °C: 7 -> 47 422 -> 48 822 km ² ; ianuarie >3 °C devine foarte extinsă	valori ridicate: Câmpia Română, zonele vestice, Dobrogea, Moldova joasă; valori scăzute: munți	mare, relevantă pentru stresul termic diurn
Temperatura minimă	anual >6 °C: 28 440 -> 86 867 -> 99 866 km ² ; înghețul se contractă drastic	valori ridicate: sud, vest, litoral; valori scăzute: depresiuni și munți	foarte relevantă pentru nopțile calde și îngheț
Nebulozitate	reducerea claselor foarte noroase; în august <3,5 zecimi crește la 66 677 km ²	valori ridicate: munți/nord; valori scăzute: sud-est și câmpii	medie, dar coerentă cu insolația
Durata de strălucire a Soarelui	anual >2 200 h: 7 049 -> 63 479 -> 74 414 km ² ; iulie >300 h crește	valori ridicate: Câmpia Română, Dobrogea, Delta Dunării; valori scăzute: Carpații	mare și foarte coerentă spațial
Presiunea atmosferică	redistribuire moderate între >1 000 și 950-1 000 hPa	valori ridicate: zone joase; valori scăzute: Carpații	mică, dominată de altitudine
Viteza vântului	în proiecție se extind clasele medii: clasa 3-4 m/s ajunge anual la 132 575 km ²	valori ridicate: Dobrogea, Delta Dunării, litoral, culmi; valori scăzute: depresiuni/arii adăpostite	foarte mare, dar cu incertitudine de modelare
Umiditate relativă	anual <75%: 2 830 -> 23 565 -> 171 069 km ² ; în august <60% ajunge la 176 378 km ²	valori ridicate: munți/nord; valori scăzute: sud, est, Dobrogea, Delta Dunării	cea mai mare și cea mai clară schimbare
Precipitații	clasa 700-1 000 mm scade la 23 005 km ² ; iunie și februarie devin mai uscate	valori ridicate: Carpații/Munții Apuseni; valori scăzute: Dobrogea, Delta Dunării, sud-est	mare, cu risc hidrologic ridicat
Strat de zăpadă	schimbare anuală mică la scară națională, dar praguri mobile ale stratului de zăpadă	valori ridicate: Carpații; valori scăzute: câmpii, Dobrogea, Delta Dunării	medie anual, mare sezonier și altitudinal

Notă pentru Tabelul 3. „Valori ridicate” și „valori scăzute” se referă la parametrul analizat. De aceea, pentru umiditate, precipitații, nebulozitate sau zăpadă, un nucleu cu valori ridicate nu înseamnă o zonă caldă, ci o zonă cu valori ridicate ale parametrului respectiv.

Diferența 2021-2050 minus 1961-1990 exprimă semnalul total. Este cea mai utilă pentru concluziile atlasului, deoarece arată transformarea climatică pe aproape un secol. În această interpretare, România se deplasează către clase termice mai ridicate, clase de insolație mai ridicate, clase de umiditate relativă mai scăzută și, în proiecție, clase de precipitații mai reduse pe suprafețe extinse. În munți, semnalul total este o comprimare altitudinală a claselor reci, umede și legate de zăpadă.

În ansamblu, România proiectată pentru 2021-2050 în scenariul RCP4.5 / CORDEX - ALADIN este mai caldă, mai însorită și are aer mai puțin umed în multe regiuni. Nu toate schimbările au aceeași direcție sau aceeași robustețe: temperatura are un semnal robust și ușor de interpretat; umiditatea relativă și precipitațiile sunt esențiale pentru evaluarea aridizării; vântul trebuie citit cu prudență; presiunea este dominată de relief; iar zăpada este mai relevantă prin pragurile altitudinale decât prin suprafața totală națională. Interpretarea cea mai potrivită nu este parametru cu parametru în mod izolat, ci una integrată: încălzire + creșterea duratei de strălucire a Soarelui + scăderea umidității relative + reducerea unor clase pluviometrice + deplasarea etajelor stratului de zăpadă.

5.3. What spatial indices add

The first gain is the separation between change in value and change in spatial structure. A conventional climate map shows that temperature increases, precipitation decreases, or relative humidity declines. Spatial indices show whether this change is diffuse, almost uniform, or whether it organizes into coherent cores. For example, temperatures increase clearly, but the spatial pattern remains relatively stable: the plains, Dobrogea, the Danube Delta, and low plateaus remain thermal hot spots, while the Carpathians remain cold spots; ΔGI mainly captures the altitudinal rise of thermal thresholds and changes at the margins of clusters.

The second gain is the identification of hot spots and cold spots as statistical groupings, not merely as colored areas on a map. Classical maps show where values are high or low, but Local G shows where these high or low values form coherent spatial groupings. This is very useful for the Romanian Plain, Western Plain, Dobrogea, Danube Delta, and Moldavian Plateau, where warming, greater sunshine, and relative drying overlap, and for the Carpathians, where hot spots of humidity, precipitation, and snow are maintained.

The third gain is the detection of transition and reorganization zones. Local Moran I highlights local autocorrelation: high positive values show areas where a given area has values similar to its neighbors, while negative values mark transitions or local contrasts. In the document with spatial indices, it is mentioned that Local Moran I maxima frequently reach 4-6, indicating very coherent local cores, usually in the mountains, at relief contacts, or in highly homogeneous plains. This information does not appear as clearly in an altitudinal profile, because the profile is only a section through the territory, whereas the spatial index covers the entire country.

The fourth gain is that ΔGI shows the change in the coherence of hot spots and cold spots between periods. Ordinary difference maps show change in physical units - °C, mm, hPa, hours, cm, and so on. ΔGI shows something else: whether a hot spot strengthens, weakens, shifts, or whether a cold spot becomes more coherent. Therefore, ΔGI should not be read as a direct difference in °C, mm, hPa, or hours, but as spatial reorganization of clusters.

5.4. Where the indices add more

Spatial indices are most useful for parameters in which not only the mean value changes, but also regional spatial coherence. This mainly includes relative humidity, wind, sunshine duration, precipitation, and snow during transition months. The report with indices shows that the largest spatial reorganizations occur precisely for these parameters, while the smallest structural changes occur for atmospheric pressure.

For relative humidity, the indices confirm the expansion or consolidation of cold spots in low and warmer units: the Romanian Plain, the Western Plain, Dobrogea, the Danube Delta, and the Moldavian Plateau. Classical maps show the decline in humidity, but the indices show that this decline is spatially organized into a coherent pattern of relative drying.

For wind, the contribution of the indices is very large because wind does not simply follow altitude. It depends on exposure, roughness, channeling along valleys, the coast, corridors, and ridges. Local Moran I and Local G show clearer cores in Dobrogea, the coast, the Danube Delta, valley corridors, and some mountain sectors, while ΔGI indicates one of the largest reorganizations, especially in March and August. Here, the indices are more important than for temperature because altitudinal profiles cannot sufficiently capture exposure and the fragmentation of the wind field.

5.3. Ce aduc în plus indicii spațiali

Primul câștig este separarea dintre schimbarea valorii și schimbarea structurii spațiale. O hartă climatică obișnuită arată că temperatura crește, precipitațiile scad sau umiditatea relativă se diminuează. Indicii spațiali arată dacă această schimbare este difuză, aproape uniformă, sau dacă se organizează în nuclee coerente. De exemplu, temperaturile cresc clar, dar modelul spațial rămâne relativ stabil: câmpiile, Dobrogea, Delta Dunării și podișurile joase rămân hot spot-uri termice, iar Carpații rămân cold spot-uri; ΔGI surprinde în principal ridicarea altitudinală a pragurilor termice și schimbările de la marginile grupărilor.

Al doilea câștig este identificarea hot spot-urilor și cold spot-urilor ca grupări statistice, nu doar ca arii colorate pe hartă. Hărțile clasice arată unde valorile sunt ridicate sau scăzute, dar Local G arată unde aceste valori ridicate sau scăzute formează grupări spațiale coerente. Acest lucru este foarte util pentru Câmpia Română, Câmpia de Vest, Dobrogea, Delta Dunării și Podișul Moldovei, unde se suprapun încălzirea, insolația mai mare și uscarea relativă, precum și pentru Carpați, unde se mențin hot spot-urile de umiditate, precipitații și zăpadă.

Al treilea câștig este detectarea zonelor de tranziție și de reorganizare. Local Moran I evidențiază autocorelația locală: valorile pozitive ridicate arată arii în care o anumită zonă are valori similare cu vecinii săi, în timp ce valorile negative marchează tranziții sau contraste locale. În documentul cu indici spațiali se menționează că maximele Local Moran I ajung frecvent la 4-6, indicând nuclee locale foarte coerente, de obicei în munți, la contactele de relief sau în câmpii foarte omogene. Această informație nu apare la fel de clar într-un profil altitudinal, deoarece profilul este doar o secțiune prin teritoriu, în timp ce indicele spațial acoperă întreaga țară.

Al patrulea câștig este că ΔGI arată schimbarea coerenței hot spot-urilor și cold spot-urilor între perioade. Hărțile obișnuite ale diferențelor arată schimbarea în unități fizice - °C, mm, hPa, ore, cm și așa mai departe. ΔGI arată altceva: dacă un hot spot se întărește, slăbește, se deplasează sau dacă un cold spot devine mai coerent. Prin urmare, ΔGI nu trebuie citit ca o diferență directă în °C, mm, hPa sau ore, ci ca reorganizare spațială a grupărilor.

5.4. Unde indicii adaugă mai mult

Indicii spațiali sunt cei mai utili pentru parametrii la care nu se modifică doar valoarea medie, ci și coerența spațială regională. Aceștia includ în principal umiditatea relativă, vântul, durata de strălucire a Soarelui, precipitațiile și zăpada în lunile de tranziție. Raportul cu indici arată că cele mai mari reorganizări spațiale apar tocmai la acești parametri, în timp ce cele mai mici schimbări structurale apar la presiunea atmosferică.

Pentru umiditatea relativă, indicii confirmă extinderea sau consolidarea cold spot-urilor în unitățile joase și mai calde: Câmpia Română, Câmpia de Vest, Dobrogea, Delta Dunării și Podișul Moldovei. Hărțile clasice arată scăderea umidității, dar indicii arată că această scădere este organizată spațial într-un model coerent de uscure relativă.

Pentru vânt, contribuția indicilor este foarte mare, deoarece vântul nu urmează pur și simplu altitudinea. El depinde de expunere, rugozitate, canalizarea de-a lungul văilor, litoral, culoare și culmi. Local Moran I și Local G arată nuclee mai clare în Dobrogea, pe litoral, în Delta Dunării, în culoarele de vale și în unele sectoare montane, iar ΔGI indică una dintre cele mai mari reorganizări, mai ales în martie și august. Aici, indicii sunt mai importanți decât pentru temperatură, deoarece profilele altitudinale nu pot surprinde suficient expunerea și fragmentarea câmpului vântului.

For precipitation, the indices are useful because a decrease or redistribution of quantities alone does not show whether spatial polarization is intensifying. The report shows that pluviometric hot spots remain in the Carpathians, the Apuseni Mountains, and the Subcarpathians, while cold spots occur in Dobrogea, the Danube Delta, the southeastern Romanian Plain, and parts of Moldavia. ΔGI indicates that, in the projection, the Dobrogea-Delta-southeast cold spot consolidates and mountain hot spots become more concentrated, resulting in greater polarization between mountains and lowlands.

For sunshine duration, classical maps show the increase in insolation hours, but the indices show the consolidation of high-insolation hot spots in the Romanian Plain, Dobrogea, and the Danube Delta, especially in 2021-2050 compared with 1991-2020. This supports the idea that the change is not only a general increase, but the strengthening of a sunnier southern and southeastern domain.

For snow cover, the indices are useful especially for transition months, April and October. Classical maps show the reduction or concentration of snow, but Local Moran I and Local G show that snow-cover hot spots remain in the Southern Carpathians, Eastern Carpathians, and Apuseni Mountains, while ΔGI suggests fragmentation or retreat of snow outside high elevations.

5.5. Where the indices add less

For atmospheric pressure, the indices add relatively little compared with classical maps and altitudinal profiles because pressure reproduces altitude very faithfully. High-pressure hot spots occur in the Romanian Plain, Western Plain, Dobrogea, the Danube Delta, and low sectors of Moldavia, while cold spots occur in the Carpathians. ΔGI is fragmented and weak in amplitude, indicating small adjustments in cluster intensity rather than a major change in the baric field.

For temperature, the indices are useful but do not change the main conclusion. The annual maps, monthly maps, and altitudinal profiles are already very convincing: warming is clear, warm classes expand, cold classes contract, and thermal thresholds rise altitudinally. The indices mainly add that the basic spatial pattern remains stable: the plains remain hot spots, the Carpathians remain cold spots, and the changes occur along margins, on flanks, and in transition zones.

The methodological conclusion can be formulated as follows: spatial indices are not necessary to demonstrate the existence of recent and projected climate changes, but they are necessary if the analysis aims to demonstrate the spatial reorganization of these changes from one normal period to another.

Spatial indices provide the argument that some changes - especially relative drying, greater sunshine, wind reorganization, precipitation polarization, and altitudinal snow-cover retreat - are not only changes in mean values, but coherent spatial reorganizations of the climatic field.

Pentru precipitații, indicii sunt utili deoarece o scădere sau o redistribuire a cantităților nu arată singură dacă polarizarea spațială se intensifică. Raportul arată că hot spot-urile pluviometrice se mențin în Carpați, Munții Apuseni și Subcarpați, în timp ce cold spot-urile apar în Dobrogea, Delta Dunării, sud-estul Câmpiei Române și părți ale Moldovei. ΔGI indică faptul că, în proiecție, cold spot-ul Dobrogea-Delta-sud-est se consolidează, iar hot spot-urile montane devin mai concentrate, ceea ce determină o polarizare mai mare între munți și zonele joase.

Pentru durata de strălucire a Soarelui, hărțile clasice arată creșterea numărului de ore de insolație, dar indicii arată consolidarea hot spot-urilor cu insolație ridicată în Câmpia Română, Dobrogea și Delta Dunării, mai ales în 2021-2050 comparativ cu 1991-2020. Acest lucru susține ideea că schimbarea nu este doar o creștere generală, ci întărirea unui domeniu sudic și sud-estic mai însoțit.

Pentru stratul de zăpadă, indicii sunt utili mai ales pentru lunile de tranziție, aprilie și octombrie. Hărțile clasice arată reducerea sau concentrarea zăpezii, dar Local Moran I și Local G arată că hot spot-urile stratului de zăpadă se mențin în Carpații Meridionali, Carpații Orientali și Munții Apuseni, în timp ce ΔGI sugerează fragmentarea sau retragerea zăpezii în afara altitudinilor mari.

5.5. Unde indicii adaugă mai puțin

Pentru presiunea atmosferică, indicii adaugă relativ puțin în comparație cu hărțile clasice și profilele altitudinale, deoarece presiunea reproduce foarte fidel altitudinea. Hot spot-urile de presiune ridicată apar în Câmpia Română, Câmpia de Vest, Dobrogea, Delta Dunării și sectoarele joase ale Moldovei, iar cold spot-urile apar în Carpați. ΔGI este fragmentat și are amplitudine redusă, indicând mici ajustări ale intensității grupărilor, nu o schimbare majoră a câmpului baric.

Pentru temperatură, indicii sunt utili, dar nu schimbă concluzia principală. Hărțile anuale, hărțile lunare și profilele altitudinale sunt deja foarte convingătoare: încălzirea este clară, clasele calde se extind, clasele reci se contractă, iar pragurile termice urcă altitudinal. Indicii adaugă în principal faptul că modelul spațial de bază rămâne stabil: câmpiile rămân hot spot-uri, Carpații rămân cold spot-uri, iar schimbările apar de-a lungul marginilor, pe flancuri și în zonele de tranziție.

Concluzia metodologică poate fi formulată astfel: indicii spațiali nu sunt necesari pentru a demonstra existența schimbărilor climatice recente și proiectate, dar sunt necesari dacă analiza urmărește să demonstreze reorganizarea spațială a acestor schimbări de la o perioadă normală la alta.

Indicii spațiali oferă argumentul că unele schimbări - în special uscarea relativă, creșterea duratei de strălucire a Soarelui, reorganizarea vântului, polarizarea precipitațiilor și retragerea altitudinală a stratului de zăpadă - nu sunt doar schimbări ale valorilor medii, ci reorganizări spațiale coerente ale câmpului climatic.

SELECTED TABLES

Adamclisi		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-1.17	0.47	4.41	10.29	15.80	19.64	21.63	21.00	17.16	11.48	6.44	1.47	10.72
	1991-2020	-0.17	1.61	5.61	10.81	16.46	20.92	23.12	22.82	17.82	12.24	6.75	1.58	11.63
	2021-2050	0.78	2.09	5.92	10.88	15.92	20.09	23.38	23.18	18.13	12.04	6.39	1.58	11.70
T max (°C)	1961-1990	2.40	4.35	9.50	16.50	21.88	25.74	27.89	27.50	23.76	17.47	10.87	4.84	16.06
	1991-2020	3.57	6.20	11.12	17.07	22.79	27.17	29.65	29.73	24.47	17.98	11.24	5.29	17.19
	2021-2050	4.20	6.26	10.84	16.65	21.89	25.73	29.46	29.48	24.46	17.46	10.59	4.96	16.83
T min (°C)	1961-1990	-4.00	-2.34	0.88	5.84	10.78	14.40	16.20	15.67	12.27	7.38	3.20	-1.20	6.59
	1991-2020	-2.96	-1.55	1.82	6.17	11.32	15.52	17.50	17.28	13.03	8.32	3.55	-1.23	7.40
	2021-2050	-1.90	-1.30	2.45	6.43	10.96	15.13	17.92	17.61	13.33	8.03	3.23	-1.00	7.57
Precip (mm)	1961-1990	29.21	29.31	30.51	37.08	53.73	67.79	46.13	49.88	35.36	36.93	42.35	39.39	497.68
	1991-2020	38.18	29.84	43.64	40.12	53.47	56.93	51.91	31.57	52.87	46.20	41.86	43.77	530.41
	2021-2050	22.72	21.79	29.85	30.20	38.24	56.34	29.33	16.31	25.43	33.60	43.16	26.30	373.23
UR (%)	1961-1990	86.97	86.02	80.72	74.69	72.93	71.32	69.34	70.45	74.17	79.26	85.01	88.53	78.28
	1991-2020	86.90	83.22	77.91	72.85	72.26	70.25	67.00	66.33	71.94	79.72	85.37	87.39	76.76
	2021-2050	81.21	76.96	72.34	67.75	69.24	63.95	52.71	50.97	58.45	68.79	78.53	80.94	68.40
v (m/s)	1961-1990	3.90	4.40	4.11	4.15	3.56	3.11	2.97	2.84	2.76	2.98	3.41	3.76	3.50
	1991-2020	3.29	3.39	3.45	3.23	2.72	2.44	2.24	2.08	2.48	2.50	2.90	3.17	2.82
	2021-2050	4.32	4.43	4.48	4.15	3.78	3.63	3.63	3.65	3.64	3.78	4.04	4.24	3.98
P (hPa)	1961-1990	1000.04	998.59	997.79	994.39	995.35	994.72	995.07	996.00	998.69	1001.31	999.81	999.02	997.57
	1991-2020	1000.91	999.44	997.49	995.57	995.52	995.09	994.61	995.97	997.84	1000.50	1000.75	1001.26	997.91
	2021-2050	1008.22	1007.17	1005.19	1003.11	1002.18	1001.88	1002.91	1004.16	1005.71	1008.49	1007.80	1008.14	1005.41
Sunshine (hours)	1961-1990	78.82	83.67	127.01	180.26	245.77	271.95	296.40	284.03	222.66	181.48	95.94	70.98	2138.95
	1991-2020	88.12	112.90	137.49	199.09	268.09	293.03	327.71	308.25	224.99	161.08	102.62	87.13	2310.50
	2021-2050	90.49	119.99	133.47	206.00	268.05	302.85	332.55	315.85	224.19	158.09	106.41	89.12	2347.06
Cloud cover (tenths)	1961-1990	6.55	6.77	6.17	5.46	4.78	4.13	3.24	2.84	3.33	4.06	5.92	6.69	5.00
	1991-2020	6.66	6.27	5.95	5.51	5.00	4.19	3.29	2.90	4.00	5.09	6.44	6.66	5.16
	2021-2050	6.71	5.73	5.87	5.37	5.03	4.77	2.94	2.68	3.81	5.35	6.33	6.36	5.00
Snow depth (cm)	1961-1990	2.78	2.10	0.47	0.01						0.00	0.27	0.97	6.60
	1991-2020	4.24	3.01	0.85							0.00	0.10	1.10	9.33
	2021-2050	4.27	5.30	0.42	0.05						0.00	0.16	1.47	11.67

Alba Iulia		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-2.84	-0.11	4.70	10.13	15.05	18.02	19.62	19.21	15.55	9.90	4.62	-0.17	9.47
	1991-2020	-1.58	0.81	5.68	11.38	16.27	19.86	21.41	21.23	16.10	10.36	4.62	-0.28	10.49
	2021-2050	-0.57	0.73	6.03	11.30	16.01	18.94	21.73	21.29	16.12	10.28	4.35	0.50	10.56
T max (°C)	1961-1990	0.42	4.32	11.32	17.25	22.16	24.93	26.86	26.67	22.97	16.46	8.52	2.58	15.37
	1991-2020	2.20	5.97	12.26	18.42	23.24	26.77	28.61	29.00	23.59	17.34	9.50	3.04	16.66
	2021-2050	3.13	5.57	12.40	18.20	22.68	25.55	28.76	28.68	23.32	16.77	9.02	3.99	16.50
T min (°C)	1961-1990	-4.96	-2.67	0.78	5.18	9.49	12.20	13.37	13.07	10.03	5.28	1.71	-2.12	5.11
	1991-2020	-3.67	-2.20	1.19	5.79	10.28	13.63	14.94	14.74	10.67	5.97	1.70	-2.09	5.91
	2021-2050	-3.25	-2.74	1.30	5.57	10.25	13.74	16.10	15.46	10.96	5.63	0.97	-1.88	6.01
Precip (mm)	1961-1990	25.96	23.60	25.88	48.98	66.26	80.45	65.77	54.69	35.03	33.21	29.05	30.98	519.87
	1991-2020	22.72	20.67	28.99	44.43	63.64	84.31	81.24	55.59	45.50	40.12	27.55	33.66	548.42
	2021-2050	21.16	20.42	34.02	41.84	60.18	75.77	55.90	43.28	38.92	32.59	31.45	23.72	479.27
UR (%)	1961-1990	86.35	83.40	76.42	73.75	75.70	76.96	76.12	77.01	78.55	80.55	84.78	88.15	79.81
	1991-2020	86.61	79.98	70.76	67.92	71.19	72.08	71.98	72.27	75.79	80.93	85.79	87.83	76.93
	2021-2050	82.46	78.18	74.56	70.84	73.30	67.47	59.18	55.85	62.59	73.79	81.53	82.52	71.85
v (m/s)	1961-1990	1.31	1.34	1.61	1.64	1.49	1.38	1.33	1.09	1.12	1.00	1.27	1.31	1.33
	1991-2020	1.53	1.63	1.76	1.65	1.64	1.46	1.36	1.14	1.29	1.26	1.35	1.36	1.46
	2021-2050	2.75	2.87	2.88	2.84	2.62	2.50	2.37	2.36	2.36	2.40	2.52	2.76	2.60
P (hPa)	1961-1990	990.26	988.24	987.23	984.39	985.88	985.82	986.56	987.17	989.52	991.54	989.75	989.40	987.98
	1991-2020	991.23	989.36	987.53	985.52	986.10	986.27	986.21	987.28	988.63	990.64	990.22	991.43	988.37
	2021-2050	971.85	971.03	968.35	967.99	968.36	968.83	970.55	971.82	972.11	973.71	973.34	971.94	970.80
Sunshine (hours)	1961-1990	66.21	88.12	146.51	164.12	211.53	216.46	241.56	239.65	190.45	161.43	79.99	51.08	1857.10
	1991-2020	74.93	105.06	159.01	193.73	232.35	254.90	270.14	266.30	193.43	156.11	88.61	58.78	2053.34
	2021-2050	73.87	107.58	161.95	193.38	232.40	258.54	274.97	269.47	189.32	158.97	91.03	58.44	2069.92
Cloud cover (tenths)	1961-1990	7.02	6.70	6.04	6.21	5.81	5.58	4.78	4.50	4.79	4.79	6.84	7.69	5.90
	1991-2020	7.09	6.63	6.33	6.15	6.15	5.62	4.98	4.59	5.52	5.68	6.75	7.69	6.10
	2021-2050	7.29	6.54	5.97	6.41	6.14	5.44	4.81	4.50	5.95	5.52	6.75	7.63	6.08
Snow depth (cm)	1961-1990	4.54	2.62	0.27	0.00						0.00	0.08	1.52	9.03
	1991-2020	2.77	2.39	0.38	0.03						0.00	0.17	1.66	7.34
	2021-2050	2.15	1.60	0.29	0.02						0.00	0.05	2.71	6.82

Alexandria		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-2.72	-0.25	4.96	11.55	16.95	20.54	22.48	21.87	17.90	11.50	5.25	0.11	10.84
	1991-2020	-1.44	1.02	6.27	11.99	17.63	21.89	23.98	23.84	18.39	12.05	5.87	0.23	11.81
	2021-2050	-0.23	1.58	6.85	12.42	17.43	21.30	24.57	24.39	18.84	11.94	5.51	0.84	12.12
T max (°C)	1961-1990	1.09	4.12	10.80	18.30	23.46	26.88	28.99	28.75	25.14	18.39	10.16	3.68	16.65
	1991-2020	2.47	6.06	12.57	18.76	24.38	28.59	30.93	31.11	25.53	18.46	10.54	4.07	17.79
	2021-2050	3.65	6.60	12.82	19.20	24.08	28.03	31.56	31.59	26.22	18.55	10.25	4.38	18.08
T min (°C)	1961-1990	-5.79	-3.45	0.62	5.87	10.86	14.30	15.99	15.60	11.92	6.40	1.72	-2.58	5.95
	1991-2020	-4.58	-2.70	1.55	6.18	11.36	15.38	17.21	17.16	12.62	7.45	2.52	-2.67	6.79
	2021-2050	-3.17	-2.42	2.16	6.68	11.38	15.21	17.97	17.64	12.96	7.27	2.11	-1.85	7.16
Precip (mm)	1961-1990	37.02	31.90	34.64	44.61	54.57	68.34	68.58	54.40	36.18	27.80	43.01	40.23	541.28
	1991-2020	33.81	27.04	35.02	43.34	65.51	78.54	64.40	39.14	49.82	47.34	35.39	36.87	556.26
	2021-2050	28.07	27.36	36.23	37.82	50.68	63.28	37.06	24.44	31.04	34.54	47.15	29.88	447.55
UR (%)	1961-1990	88.35	86.00	78.41	70.80	70.36	69.90	67.42	67.33	69.03	75.63	85.62	89.45	76.52
	1991-2020	90.04	84.57	74.95	70.59	69.85	68.40	61.61	66.85	79.10	87.42	91.09	91.09	75.69
	2021-2050	84.15	77.98	72.63	69.53	70.58	62.93	49.73	46.53	55.11	68.23	80.60	83.79	68.48
v (m/s)	1961-1990	2.79	3.14	3.40	3.27	2.68	2.33	2.11	2.12	2.17	2.33	2.59	2.55	2.62

Bacau		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-3.63	-1.77	2.76	9.61	15.16	18.46	19.92	19.24	15.15	9.45	4.07	-0.72	8.97
	1991-2020	-2.22	-0.42	4.18	10.42	16.06	19.92	21.61	20.83	15.61	9.79	4.34	-0.86	9.94
	2021-2050	-1.08	-0.04	5.11	10.90	16.03	19.01	21.85	21.66	16.17	10.08	4.38	0.21	10.36
T max (°C)	1961-1990	0.44	2.37	8.27	16.28	21.79	25.23	26.86	26.63	22.70	16.20	8.77	3.12	14.89
	1991-2020	1.95	4.52	10.39	17.25	23.13	26.75	28.82	28.65	23.08	16.33	8.87	3.02	16.06
	2021-2050	2.71	4.54	10.74	17.23	22.50	25.57	28.74	28.94	23.02	16.19	9.18	3.85	16.10
T min (°C)	1961-1990	-7.54	-5.47	-1.49	4.04	9.20	12.29	13.71	12.98	9.28	4.36	0.28	-4.32	3.94
	1991-2020	-5.78	-4.26	-0.50	4.46	9.49	13.40	14.82	14.22	9.93	5.07	0.85	-4.13	4.80
	2021-2050	-4.25	-3.76	1.04	5.52	10.43	13.59	16.16	15.63	11.13	5.74	1.06	-2.68	5.80
Precip (mm)	1961-1990	23.94	24.28	26.79	51.61	72.14	77.35	77.76	59.38	47.76	29.08	30.91	24.07	545.06
	1991-2020	24.29	24.85	33.39	49.91	72.45	99.32	97.26	48.98	52.32	50.86	33.12	31.58	618.35
	2021-2050	16.70	17.35	32.72	39.33	53.04	80.18	56.35	39.08	30.52	31.45	28.89	18.16	443.75
UR (%)	1961-1990	88.69	87.60	82.96	76.45	76.26	75.71	76.46	77.31	79.67	82.14	86.71	88.96	81.58
	1991-2020	86.18	82.56	75.21	69.76	69.63	71.30	71.46	72.73	75.54	81.75	85.73	87.02	77.41
	2021-2050	81.65	77.28	72.97	68.05	73.25	67.96	60.54	53.22	59.14	70.73	78.89	80.06	70.31
v (m/s)	1961-1990	3.46	3.83	3.61	3.57	2.82	2.41	2.26	2.18	2.15	2.56	2.96	3.27	2.92
	1991-2020	2.45	2.64	2.85	2.56	2.19	1.85	1.75	1.53	1.73	1.77	2.31	2.29	2.15
	2021-2050	3.08	3.23	3.40	3.33	3.11	3.00	2.90	2.97	2.96	2.99	2.98	2.96	3.08
P (hPa)	1961-1990	996.64	995.46	994.70	991.33	992.40	991.68	992.29	993.31	995.72	998.14	996.13	995.43	994.44
	1991-2020	997.72	996.36	994.71	992.87	992.97	992.70	992.49	994.12	995.57	997.96	997.72	998.14	995.28
	2021-2050	990.35	989.67	987.94	986.72	985.93	985.83	987.15	988.67	989.49	992.18	991.46	989.96	988.63
Sunshine (hours)	1961-1990	67.63	77.80	124.09	167.08	218.42	240.03	262.47	256.78	195.57	150.65	75.02	60.97	1896.51
	1991-2020	64.46	88.56	138.48	180.26	235.49	246.43	275.32	261.06	183.28	133.86	71.45	52.48	1931.12
	2021-2050	66.54	95.22	138.12	182.49	231.79	252.75	280.28	262.68	177.56	129.60	73.65	52.56	1943.24
Cloud cover (tenths)	1961-1990	7.15	7.43	6.92	6.55	6.07	5.57	5.10	4.62	5.02	5.49	7.11	7.47	6.21
	1991-2020	7.33	6.99	6.56	6.18	5.71	5.47	4.83	4.35	5.29	6.07	7.20	7.43	6.12
	2021-2050	7.13	6.64	6.37	6.10	5.89	5.22	4.67	4.42	5.80	6.49	7.40	7.35	6.12
Snow depth (cm)	1961-1990	6.63	8.90	4.82	0.17						0.00	0.97	2.30	23.78
	1991-2020	7.52	6.79	2.84	0.10						0.00	1.21	7.11	22.68
	2021-2050	10.62	6.73	4.08	0.10						0.00	0.65	7.36	29.54

Baia Mare		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-2.72	0.00	4.75	10.51	15.46	18.19	19.66	18.98	15.09	9.99	4.84	-0.25	9.54
	1991-2020	-1.05	0.60	5.16	11.29	16.01	19.58	21.10	20.86	15.66	10.53	5.72	0.48	19.49
	2021-2050	-1.46	-0.78	4.39	9.76	14.64	17.03	19.64	19.18	14.35	9.20	3.44	-0.20	9.10
T max (°C)	1961-1990	0.93	4.16	10.05	16.45	21.48	24.06	25.88	25.57	21.76	16.16	8.80	2.85	14.85
	1991-2020	2.34	4.84	10.66	17.54	22.45	25.91	27.65	28.03	22.41	16.54	10.12	3.50	16.00
	2021-2050	1.67	3.21	9.46	15.93	20.57	23.80	25.71	25.56	20.57	14.75	7.36	2.76	14.90
T min (°C)	1961-1990	-6.31	-3.78	0.35	5.26	9.71	12.54	13.89	13.58	10.24	5.42	1.47	-3.27	4.92
	1991-2020	-4.13	-2.80	0.70	5.66	10.09	13.60	15.12	14.94	10.62	6.16	2.12	-2.28	5.82
	2021-2050	-4.02	-4.01	0.71	5.61	9.05	11.83	14.07	13.59	9.78	5.29	0.78	-2.63	4.92
Precip (mm)	1961-1990	65.36	49.19	50.08	59.48	84.40	103.02	88.75	79.56	53.84	50.60	70.13	82.53	836.94
	1991-2020	70.00	60.82	64.04	59.52	87.81	94.44	91.21	71.70	79.70	73.89	71.75	85.64	910.52
	2021-2050	60.33	41.99	50.44	48.95	59.68	90.69	70.78	52.98	44.37	45.94	65.74	66.28	698.17
UR (%)	1961-1990	86.80	83.03	76.57	72.70	76.00	77.57	76.33	79.41	82.06	82.62	85.77	89.70	80.71
	1991-2020	86.95	81.20	71.26	66.00	70.61	71.14	71.44	71.25	75.96	80.58	82.51	87.01	76.33
	2021-2050	85.18	80.85	73.66	68.91	73.97	68.88	59.58	55.13	63.09	74.31	81.86	84.38	72.48
v (m/s)	1961-1990	1.30	1.58	1.96	2.28	1.92	1.75	1.81	1.51	1.54	1.40	1.65	1.26	1.66
	1991-2020	1.40	1.75	2.13	2.22	1.98	1.99	1.86	1.79	1.80	1.71	1.69	1.57	1.82
	2021-2050	2.72	2.78	2.98	2.93	2.64	2.55	2.53	2.61	2.62	2.58	2.57	2.67	2.68
P (hPa)	1961-1990	993.86	991.89	990.80	987.86	989.25	989.10	989.87	990.52	992.84	994.81	993.02	992.79	991.38
	1991-2020	994.88	993.05	991.18	989.16	989.73	989.83	989.70	990.82	992.24	994.15	993.73	995.13	991.97
	2021-2050	994.35	993.64	991.68	989.96	990.10	990.18	991.67	993.00	993.52	995.71	994.37	994.33	992.71
Sunshine (hours)	1961-1990	61.21	85.93	135.33	179.15	230.44	238.18	268.29	256.74	192.63	159.64	71.19	44.06	1922.80
	1991-2020	65.85	86.69	144.93	199.20	249.41	272.28	287.57	285.93	194.42	147.82	87.72	52.20	2074.03
	2021-2050	64.19	89.98	152.62	199.18	255.82	278.14	282.39	287.33	186.53	157.76	89.33	50.56	2093.83
Cloud cover (tenths)	1961-1990	7.40	7.08	6.64	6.59	6.25	5.96	5.43	4.95	5.36	5.39	7.40	8.03	6.37
	1991-2020	7.63	7.37	6.69	6.27	6.04	5.66	5.15	4.56	5.75	6.07	6.99	7.84	6.34
	2021-2050	7.68	7.18	6.01	6.71	6.01	5.40	5.27	4.77	6.25	5.62	6.91	7.85	6.30
Snow depth (cm)	1961-1990	10.75	9.98	1.57	0.00						0.00	0.53	5.18	28.01
	1991-2020	6.98	6.93	1.64	0.03						0.00	0.38	3.17	19.02
	2021-2050	5.36	5.03	1.30	0.03						0.00	0.25	3.67	15.64

Bailesti		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-1.81	0.48	5.26	11.57	16.80	19.90	21.64	20.94	16.98	10.72	5.05	0.52	10.67
	1991-2020	-0.76	1.39	6.47	12.29	17.54	21.50	23.34	23.00	17.66	11.55	5.72	0.48	11.68
	2021-2050	0.34	2.04	7.19	12.76	17.75	21.26	24.56	24.40	18.74	12.09	5.69	1.56	12.37
T max (°C)	1961-1990	1.95	4.79	11.02	18.22	23.44	26.61	28.74	28.46	24.77	17.79	9.88	4.14	16.65
	1991-2020	3.40	6.52	12.78	18.97	24.18	28.30	30.52	30.63	25.08	18.09	10.17	4.30	17.75
	2021-2050	3.77	6.66	12.88	19.22	24.16	27.95	31.79	31.86	26.11	18.36	10.09	4.71	18.13
T min (°C)	1961-1990	-3.99	-1.94	1.48	6.23	10.69	13.33	14.57	14.12	10.86	5.93	2.04	-1.58	5.98
	1991-2020	-3.34	-1.82	2.05	6.58	11.21	14.37	15.84	15.78	11.64	6.96	2.79	-1.95	6.68
	2021-2050	-2.57	-1.88	2.80	7.38	12.05	15.43	18.18	17.77	13.14	7.53	2.41	-1.15	7.57
Precip (mm)	1961-1990	39.33	43.05	44.84	53.24	62.50	63.62	48.48	36.53	32.18	36.76	56.07	50.22	566.82
	1991-2020	38.89	33.16	41.12	43.15	59.60	55.03	59.26	45.16	50.95	49.24	42.20	45.58	563.33
	2021-2050	32.69	29.03	41.18	43.21	49.22	56.37	29.16	21.94	26.77	35.70	43.79	33.10	442.15
UR (%)	1961-1990	88.65	86.93	80.76	73.98	72.44	71.96	69.30	70.34	75.21	81.76	88.01	90.04	79.12
	1991-2020	86.87	82.91	75.10	70.73	70.85	68.64	65.66	65.69	70.97	80.73	86.06	87.97	76.01
	2021-2050	83.29	77.87	72.86	68.90	69.94	62.62	50.59	48.24	55.48	68.64	80.56	82.60	68.47
v (m/s)	1961-1990	2.31	2.40	2.52	2.63	2.31	2.39	2.24	1.96	1.87	1.83	2.02	2.12	2.22
	1991-2020	1.97	2.27	2.52	2.42	2.24	2.07	1.97	1.66	1.88	1.74	1.78	1.82	2.03
	2021-2050	3.13	3.47	3.60	3.56	3.22	3.21	3.13	3.12	3.08	3.07	2.95	3.06	3.22
P (hPa)	1961-1990	1013.72	1011.80	1010.47	1006.53	1007.48	1007.10	1007.56	1008.13	1010.96	1013.77	1012.69	1012.60	1010.23
	1991-2020	1014.49	1012.63	1010.33	1007.69	1007.59	1007.28	1006.78	1007.88	1009.95	1012.95	1013.50	1014.57	1010.47
	2021-2050	1013.39	1012.19	1009.69	1007.38	1006.64	1006.42	1007.55	1008.56	1010.02	1012.87	1012.44	1013.36	1010.04
Sunshine (hours)	1961-1990	65.87	83.09	137.69	190.25	242.49	262.55	312.78	289.44	227.45	160.99	86.71	66.87	2126.17
	1991-2020	100.34	126.89	179.40	224.86	278.83	314.15	341.66	317.50	235.58	171.08	90.53	83.29	2464.09
	2021-2050	102.49	136.08	184.05	229.27	281.76	322.33	353.27	325.43	233.42	167.63	93.49	85.11	2514.33
Cloud cover (tenths)	1961-1990	6.87	6.79	6.14	5.73	5.36	4.60	3.46	3.32	3.69	4.57	6.29	6.78	5.30
	1991-2020	6.76	6.34	6.00	5.85	5.68	4.63	3.75	3.48	4.60	5.59	7.02	6.89	5.55
	2021-2050	6.84	6.03	5.50	5.93	5.68	4.47	3.19	3.19	4.56	5.80	6.67	6.66	5.38
Snow depth (cm)	1961-1990	8.47	6.96	1.67	0.00						0.00	0.70	2.93	20.73
	1991-2020	5.61	4.47	0.82	0.00						0.00	1.00	3.55	15.30
	2021-2050	6.43	4.97	0.55	0.00						0.00	0.42	7.21	19.58

Balea Lac		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-7.99	-7.86	-5.46	-1.37	3.33	6.25	8.07	8.24	5.47	1.88	-2.55	-6.06	0.16
	1991-2020	-7.36	-7.20	-5.28	-0.72	3.98	7.76	9.66	10.03	5.81	2.49	-1.44	-5.90	0.99
	2021-2050	-5.96	-5.77	-5.07	-0.66	4.40	7.16	10.09	9.78	7.02	2.45	-2.64	-4.84	1.33
T max (°C)	1961-1990	-4.42	-4.27	-1.64	2.17	6.44	9.16	10.96	11.14	8.52	5.22	0.59	-2.89	3.41
	1991-2020	-4.14	-3.56	-1.08	3.34	7.50	10.84	12.60	12.99	8.68	5.70	1.50	-3.04	4.28
	2021-2050	-4.09	-3.82	-2.35	2.53	8.08	10.12	13.25	13.18	10.01	5.38	-0.20	-3.04	4.09
T min (°C)	1961-1990	-11.25	-10.94	-8.37	-3.92	0.91	3.77	5.63	5.89	3.11	-0.79	-5.45	-9.06	-2.54
	1991-2020	-10.24	-10.30	-8.33	-3.41	1.40	5.20	7.24	7.77	3.64	-0.13	-4.02	-8.61	-1.65
	2021-2050	-7.96	-8.06	-6.17	-2.20	2.74	6.13	8.94	8.66	6.09	1.48	-3.12	-6.74	0.02
Precip (mm)	1961-1990	97.01	96.12	92.79	138.60	204.00	288.00	254.79	191.39	135.14	110.37	107.64	106.25	1822.10
	1991-2020	105.82	101.19	118.08	120.30	164.05	220.05	239.15	202.10	153.94	117.84	111.15	111.79	1765.47
	2021-2050	54.86	49.01	81.72	88.19	107.62	173.02	123.47	96.16	87.03	83.37	104.97	59.74	1104.16
UR (%)	1961-1990	83.89	84.08	79.99	79.11	80.31	82.46	81.89	81.63	81.66	80.32	83.56	85.79	82.06
	1991-2020	82.71	82.09	83.87	82.74	83.94	85.47	84.53	82.62	83.90	78.20	78.12	81.02	82.43
	2021-2050	85.74	84.17	82.82	80.39	83.19	79.63	73.81	70.11	75.36	82.02	84.68	86.21	80.69
v (m/s)	1961-1990	2.97	3.35	3.52	3.62	2.95	2.66	2.62	2.35	2.63	2.73	3.24	2.96	2.97
	1991-2020	2.81	3.08	2.96	2.98	2.34	2.18	2.29	2.09	2.58	2.60	3.30	2.85	2.65
	2021-2050	3.32	3.37	3.48	3.42	3.03	2.87	2.65	2.68	2.86	2.84	2.99	3.32	3.07
P (hPa)	1961-1990	770.34	769.67	771.40	772.50	777.22	779.24	781.00	781.50	781.16	779.65	774.64	771.14	775.79
	1991-2020	782.48	782.33	783.09	784.43	788.95	791.49	792.50	792.86	790.81	789.23	786.67	784.26	787.42
	2021-2050	821.23	820.28	820.42	821.44	823.93	826.56	829.71	831.12	829.16	827.81	823.91	821.70	824.77
Sunshine (hours)	1961-1990	86.34	84.61	108.78	108.60	127.75	131.05	157.70	166.27	134.68	135.90	98.11	79.54	1419.33
	1991-2020	89.30	92.70	111.32	115.88	131.17	141.72	163.82	177.21	130.23	127.57	102.51	81.10	1464.51
	2021-2050	89.47	95.60	113.99	117.80	132.46	145.76	164.48	179.39	123.05	127.98	101.44	79.67	1471.09
Cloud cover (tenths)	1961-1990	5.98	6.88	7.21	7.64	7.65	7.64	7.15	6.48	6.33	5.57	6.29	6.33	6.76
	1991-2020	5.81	6.56	7.23	7.41	7.54	7.31	6.88	6.15	6.70	6.16	6.10	5.87	6.64
	2021-2050	5.73	6.52	6.90	7.62	7.47	7.03	6.76	5.98	7.08	6.12	6.43	5.78	6.62
Snow depth (cm)	1961-1990	73.44	96.20	96.62	86.31						3.29	16.01	44.90	416.65
	1991-2020	116.83	160.00	193.73	194.67						5.38	24.52	73.07	758.27
	2021-2050	108.89	154.95	190.89	199.48						1.72	19.13	77.31	753.37

Banloc		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-0.44	1.88	5.87	10.68	15.36	18.12	19.60	19.12	15.66	10.72	5.89	1.57	10.34
	1991-2020	0.54	2.11	6.31	11.61	16.34	19.89	21.60	21.51	16.42	11.31	6.56	1.89	11.34
	2021-2050	0.81	2.32	6.84	12.15	17.19	20.02	23.28	23.02	17.86	12.09	5.81	1.95	11.95
T max (°C)	1961-1990	3.43	6.45	11.99	17.16	21.92	24.70	26.62	26.53	23.15	17.80	10.82	5.22	16.32
	1991-2020	4.52	7.11	12.60	18.29	22.88	26.51	28.78	29.02	23.72	18.20	11.88	5.59	17.42
	2021-2050	4.28	7.14	12.82	18.41	23.31	26.32	29.90	29.98	24.70	18.14	10.35	5.38	17.56
T min (°C)	1961-1990	-3.50	-1.45	1.38	5.21	9.23	11.86	12.76	12.47	9.71	5.50	2.26	-1.28	5.35
	1991-2020	-2.62	-1.67	1.37	5.67	9.97	13.36	14.55	14.56	10.70	6.36	2.67	-1.18	6.15
	2021-2050	-1.97	-1.30	2.41	6.73	11.89	14.31	17.19	16.79	12.66	7.65	2.50	-0.59	7.32
Precip (mm)	1961-1990	36.41	36.63	35.59	49.40	71.96	79.16	55.70	57.41	40.74	38.67	45.26	49.56	596.48
	1991-2020	37.19	37.55	36.29	45.55	59.39	74.69	70.03	58.32	50.43	47.31	44.70	46.14	607.59
	2021-2050	40.24	33.49	41.14	43.94	56.66	74.34	46.32	40.07	39.55	38.41	47.45	45.12	546.71
UR (%)	1961-1990	84.78	80.85	74.57	71.69	71.28	72.03	69.31	70.15	73.71	76.23	82.34	86.68	76.13
	1991-2020	86.70	81.15	73.04	70.00	71.20	71.19	68.78	68.78	73.86	78.25	82.46	86.71	76.01
	2021-2050	82.76	76.59	71.85	67.00	70.83	63.48	52.18	49.09	57.87	68.72	79.93	82.46	68.56
v (m/s)	1961-1990	3.01	3.46	3.63	3.35	2.85	2.60	2.35	2.14	2.06	2.60	3.18	2.91	2.84
	1991-2020	2.82	3.19	3.30	3.16	2.81	2.53	2.45	2.21	2.46	2.77	3.18	2.94	2.82
	2021-2050	3.73	3.77	4.01	3.88	3.33	3.19	3.19	3.20	3.30	3.53	3.55	3.61	3.52
P (hPa)	1961-1990	1010.10	1007.87	1006.65	1003.36	1004.48	1004.54	1005.28	1005.55	1008.15	1010.15	1008.95	1009.15	1007.02
	1991-2020	1011.04	1009.19	1007.00	1004.34	1004.71	1004.78	1004.42	1005.25	1006.99	1009.24	1009.12	1010.87	1007.24
	2021-2050	1008.41	1007.56	1005.30	1003.34	1003.06	1003.88	1004.27	1005.40	1006.34	1008.37	1007.86	1008.62	1005.95
Sunshine (hours)	1961-1990	69.86	87.41	151.34	182.84	238.26	261.25	296.73	272.58	212.80	172.59	86.49	56.52	2088.67
	1991-2020	71.61	104.49	157.34	202.44	248.36	273.74	296.76	284.21	197.09	160.36	95.96	60.77	2153.13
	2021-2050	69.99	107.27	162.07	199.13	252.20	275.83	302.90	286.85	191.67	162.80	101.02	60.69	2172.42
Cloud cover (tenths)	1961-1990	6.99	6.80	6.11	6.09	5.74	5.26	4.04	3.90	4.34	4.68	6.67	7.41	5.67
	1991-2020	7.29	6.76	6.24	6.04	5.91	5.17	4.33	4.07	5.22	5.47	6.51	7.58	5.88
	2021-2050	7.47	6.48	5.73	6.56	5.90	5.27	4.07	4.02	5.33	5.17	6.25	7.55	5.82
Snow depth (cm)	1961-1990	4.19	2.59	0.43	0.00						0.00	0.03	1.57	8.81
	1991-2020	1.53	2.41	0.36	0.00						0.00	0.07	1.38	5.69
	2021-2050	1.82	2.20	0.70	0.00						0.00	0.03	1.11	9.06

Barlad		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-3.33	-1.51	3.14	10.13	15.85	19.17	20.66	20.14	16.13	10.23	4.45	-0.54	9.54
	1991-2020	-2.02	-0.08	4.62	10.83	16.49	20.45	22.48	22.05	16.71	10.70	4.98	-0.53	10.56
	2021-2050	-0.80	0.47	5.47	11.33	16.54	19.76	22.87	22.62	16.91	10.59	4.60	0.19	10.88
T max (°C)	1961-1990	0.20	2.20	8.18	16.24	21.85	24.99	26.71	26.45	22.64	16.07	8.56	2.71	14.73
	1991-2020	1.36	4.12	10.10	16.98	22.75	26.44	28.75	28.69	23.09	16.19	8.90	2.68	15.84
	2021-2050	2.67	5.02	10.80	17.65	22.85	26.05	29.28	29.50	23.73	16.56	9.14	3.47	16.39
T min (°C)	1961-1990	-6.48	-4.46	-0.61	5.21	10.48	13.71	15.22	14.60	10.83	5.70	1.22	-3.39	5.17
	1991-2020	-4.86	-3.35	0.43	5.64	10.75	14.77	16.49	15.97	11.48	6.55	1.97	-3.24	6.05
	2021-2050	-3.51	-2.99	1.34	5.90	10.81	14.31	16.99	16.57	11.66	6.23	1.43	-2.47	6.36
Precip (mm)	1961-1990	25.48	25.44	25.50	38.77	51.62	71.32	62.50	45.15	35.99	24.61	29.37	27.16	462.90
	1991-2020	21.15	22.10	29.14	42.14	55.95	71.64	55.28	51.61	41.00	45.07	32.75	31.96	499.80
	2021-2050	16.40	16.14	29.88	35.14	48.55	69.48	45.30	30.95	25.68	31.00	32.23	17.49	398.24
UR (%)	1961-1990	86.38	85.01	79.71	72.63	70.65	72.21	72.23	71.35	73.54	78.27	84.83	87.80	77.89
	1991-2020	87.06	83.42	74.99	69.68	70.00	70.84	68.50	67.18	71.64	79.33	85.21	87.88	76.31
	2021-2050	82.40	77.00	71.19	65.98	69.23	63.92	53.86	47.59	54.83	68.06	78.48	81.12	67.72
v (m/s)	1961-1990	4.18	4.54	4.29	4.40	3.82	3.32	3.25	2.95	2.93	3.24	3.54	3.80	3.69
	1991-2020	3.22	3.36	3.66	3.18	2.88	2.63	2.55	2.34	2.63	2.62	2.85	2.99	2.91
	2021-2050	3.95	4.11	4.24	3.99	3.69	3.57	3.54	3.57	3.54	3.71	3.76	3.89	3.80
P (hPa)	1961-1990	999.22	997.99	997.22	993.70	994.58	993.77	994.24	995.02	997.55	1000.18	998.31	997.64	996.62
	1991-2020	999.02	997.65	995.91	994.04	993.98	993.51	993.19	994.81	996.52	999.10	999.05	999.39	996.35
	2021-2050	1000.15	999.53	997.65	995.56	995.10	994.78	995.97	997.46	998.67	1001.63	1000.21	999.89	998.05
Sunshine (hours)	1961-1990	77.82	89.55	136.36	190.45	251.54	282.01	302.36	289.67	227.71	176.85	87.14	69.00	2180.46
	1991-2020	74.43	104.13	152.19	195.52	257.44	275.95	300.52	279.32	207.17	148.05	82.88	62.89	2140.50
	2021-2050	76.14	111.61	149.83	197.68	257.35	281.52	304.97	281.56	202.32	145.52	85.28	64.52	2158.30
Cloud cover (tenths)	1961-1990	7.13	7.41	6.97	6.66	6.22	5.71	5.08	4.68	4.88	5.40	7.17	7.56	6.24
	1991-2020	7.19	6.81	6.29	5.86	5.44	5.10	4.39	3.91	4.89	5.74	7.02	7.33	5.83
	2021-2050	7.01	6.44	6.20	5.74	5.52	4.95	4.23	3.92	5.30	6.07	7.28	7.09	5.81
Snow depth (cm)	1961-1990	5.19	4.83	1.90	0.03						0.00	0.67	2.00	14.62
	1991-2020	3.78	2.74	1.11	0.07						0.00	0.48	2.24	10.33
	2021-2050	4.49	2.15	1.30	0.04						0.00	0.32	2.56	10.86

Braila		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-2.28	-0.36	4.19	10.86	16.63	20.24	21.87	21.13	16.91	10.92	5.39	0.42	10.49
	1991-2020	-1.29	0.78	5.55	11.55	17.38	21.48	23.47	22.87	17.45	11.53	5.90	0.38	11.42
	2021-2050	-0.29	1.29	6.17	11.81	17.21	20.82	24.03	23.75	18.04	11.53	5.53	0.66	11.71
T max (°C)	1961-1990	1.73	3.94	9.97	17.66	23.18	26.74	28.58	28.27	24.41	17.85	10.36	4.12	16.40
	1991-2020	2.67	5.84	11.76	18.40	24.35	28.38	30.67	30.58	25.04	18.07	10.72	4.21	17.56
	2021-2050	3.45	6.30	11.74	18.25	23.57	27.18	30.68	30.71	25.05	17.70	10.16	4.14	17.41
T min (°C)	1961-1990	-5.92	-3.90	-0.17	5.33	10.61	14.16	15.70	15.07	11.10	5.80	1.41	-2.89	5.53
	1991-2020	-4.51	-3.00	0.86	5.70	10.88	14.94	16.65	16.16	11.53	6.82	2.33	-2.65	6.31
	2021-2050	-2.91	-2.35	2.04	6.44	11.43	15.03	17.77	17.40	12.43	6.95	2.14	-1.91	7.04
Precip (mm)	1961-1990	24.50	27.51	28.40	32.55	50.39	64.99	47.14	49.04	38.53	27.41	31.63	33.32	455.42
	1991-2020	29.55	23.32	29.66	36.38	46.51	60.74	49.62	35.13	38.88	41.87	34.03	36.63	462.30
	2021-2050	18.75	17.99	26.35	30.35	39.59	55.74	29.67	20.15	22.83	29.09	32.76	19.54	342.81
UR (%)	1961-1990	82.40	81.06	75.93	69.52	67.24	65.53	65.32	65.99	69.90	74.43	80.71	84.32	73.53
	1991-2020	85.02	80.36	72.49	67.64	67.34	66.88	64.70	64.39	70.14	78.11	83.36	85.93	73.86
	2021-2050	83.59	77.93	71.80	66.14	67.25	61.53	51.80	47.41	55.53	67.87	79.16	82.69	67.72
v (m/s)	1961-1990	3.38	3.82	3.61	3.60	2.94	2.59	2.32	2.10	2.03	2.34	2.63	2.97	2.86
	1991-2020	2.66	2.89	3.26	2.92	2.49	2.14	1.94	1.84	2.00	2.14	2.45	2.65	2.43
	2021-2050	3.66	3.92	4.10	3.94	3.60	3.39	3.38	3.42	3.43	3.49	3.55	3.66	3.63
P (hPa)	1961-1990	1017.61	1016.12	1015.13	1011.18	1011.79	1010.84	1011.21	1012.30	1015.25	1018.31	1016.93	1016.48	1014.43
	1991-2020	1018.69	1017.18	1015.08	1012.81	1012.38	1011.53	1010.91	1012.65	1014.81	1017.78	1018.33	1019.02	1015.10
	2021-2050	1019.76	1018.89	1016.70	1014.28	1013.24	1012.62	1013.59	1014.97	1016.68	1019.97	1019.28	1019.55	1016.63
Sunshine (hours)	1961-1990	65.58	75.12	127.08	180.49	238.04	267.28	287.22	281.83	224.32	177.62	81.45	57.36	2063.38
	1991-2020	73.79	104.35	151.54	199.36	255.31	264.86	300.11	295.17	223.28	156.95	88.42	69.66	2182.81
	2021-2050	73.60	111.13	148.30	201.01	254.14	272.29	302.08	298.99	220.25	154.69	90.98	71.09	2198.55
Cloud cover (tenths)	1961-1990	6.94	7.08	6.75	6.06	5.66	5.03	4.31	3.87	4.29	4.77	6.70	7.19	5.72
	1991-2020	7.12	6.50	6.29	5.72	5.36	4.76	3.92	3.54	4.57	5.48	6.75	6.99	5.58
	2021-2050	7.08	6.19	6.26	5.67	5.46	4.45	3.65	3.33	4.72	5.79	6.82	6.77	5.52
Snow depth (cm)	1961-1990	3.15	2.39	0.48	0.00						0.00	0.47	1.22	7.71
	1991-2020	3.88	3.13	0.65	0.03						0.00	0.21	1.52	9.35
	2021-2050	4.33	3.79	1.37	0.02						0.00	0.28	2.06	11.85

Brasov		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-4.99	-2.58	2.54	8.41	13.23	16.11	17.56	17.06	13.40	7.84	2.80	-2.20	7.43
	1991-2020	-3.56	-1.77	3.23	8.98	13.99	17.64	19.21	18.77	13.87	8.64	3.26	-2.09	9.35
	2021-2050	-2.65	-1.85	3.67	8.98	13.70	16.83	19.41	19.09	13.85	8.27	2.75	-1.36	8.39
T max (°C)	1961-1990	-0.05	2.85	9.11	15.23	19.94	22.65	24.19	24.37	20.99	15.50	8.34	1.98	13.76
	1991-2020	1.01	4.03	9.67	15.89	20.83	24.29	26.45	26.43	21.28	15.87	9.08	2.25	19.74
	2021-2050	1.90	3.54	10.11	16.01	20.29	23.32	26.25	26.50	21.21	15.30	8.28	2.91	14.64
T min (°C)	1961-1990	-9.62	-7.04	-2.45	2.55	7.13	10.13	11.48	10.80	7.41	2.36	-1.39	-5.99	2.11
	1991-2020	-7.52	-6.41	-1.73	2.87	7.59	11.39	12.70	12.12	8.09	3.43	-1.17	-5.75	2.97
	2021-2050	-6.45	-6.35	-0.91	3.02	7.60	11.14	13.37	12.69	8.24	3.11	-1.11	-4.77	3.30
Precip (mm)	1961-1990	26.44	23.66	26.92	45.20	71.82	89.18	91.22	71.60	44.99	34.70	31.84	27.69	585.25
	1991-2020	25.80	26.06	36.57	46.08	75.29	90.97	86.44	74.73	58.09	45.18	29.33	30.54	625.07
	2021-2050	23.21	20.44	34.33	43.88	64.14	89.47	63.74	52.28	39.90	36.81	35.25	25.97	529.41
UR (%)	1961-1990	85.66	83.15	76.27	71.62	73.92	76.32	77.22	76.85	78.03	80.07	84.27	87.09	79.21
	1991-2020	87.51	82.79	75.53	71.59	73.97	75.44	74.75	75.38	78.43	81.74	84.67	88.60	79.20
	2021-2050	83.79	80.71	77.36	75.02	77.78	73.41	64.62	60.31	67.35	77.29	82.53	83.81	75.33
v (m/s)	1961-1990	2.32	2.70	3.29	3.33	2.83	2.55	2.30	2.05	2.23	2.33	2.51	2.36	2.57
	1991-2020	2.20	2.47	3.12	2.95	2.53	2.42	2.25	1.93	2.22	2.32	2.19	1.60	2.38
	2021-2050	2.77	2.99	3.03	3.00	2.71	2.63	2.51	2.52	2.54	2.56	2.64	2.73	2.72
P (hPa)	1961-1990	954.44	952.91	952.42	950.22	952.22	952.40	953.31	954.00	955.94	957.42	954.99	953.98	953.69
	1991-2020	955.63	954.10	952.79	951.60	952.62	953.07	953.16	954.40	955.24	956.68	955.76	956.13	954.26
	2021-2050	941.34	940.51	939.34	938.51	939.26	940.17	943.19	943.52	943.39	944.41	943.20	941.43	943.36
Sunshine (hours)	1961-1990	79.52	95.81	152.82	161.69	208.27	218.22	238.90	238.24	190.66	163.91	91.78	62.14	1901.96
	1991-2020	77.29	102.21	150.80	179.83	223.12	243.03	265.13	261.29	186.67	157.35	100.80	65.44	2012.95
	2021-2050	76.56	106.13	152.43	184.38	220.85	246.49	269.12	266.34	182.70	158.23	101.42	64.70	2029.35
Cloud cover (tenths)	1961-1990	7.09	7.03	6.46	6.79	6.56	6.27	5.71	5.13	5.33	5.27	6.77	7.56	6.33
	1991-2020	7.00	6.81	6.65	6.51	6.36	5.89	5.29	4.71	5.62	5.71	6.35	7.25	6.18
	2021-2050	6.97	6.71	6.35	6.60	6.35	5.51	5.05	4.56	5.87	5.83	6.49	7.09	6.12
Snow depth (cm)	1961-1990	7.22	7.15	2.10	0.13						0.03	0.90	3.23	20.76
	1991-2020	5.15	4.80	1.69	0.24						0.00	0.86	2.93	15.55
	2021-2050	4.41	4.12	1.82	0.07						0.00	1.17	3.61	15.20

Bucuresti-Filaret		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-1.83	0.48	5.45	11.89	17.12	20.56	22.43	21.79	17.73	11.70	5.79	0.69	11.15
	1991-2020	-0.65	1.72	6.74	12.36	17.75	21.95	23.99	23.69	18.19	12.05	6.32	0.90	12.09
	2021-2050	-0.30	1.38	6.32	12.02	17.12	20.74	24.04	23.72	18.07	11.51	5.36	0.67	11.72
T max (°C)	1961-1990	1.96	4.67	11.11	18.57	23.75	27.09	29.15	29.05	25.28	18.64	10.50	4.20	17.00
	1991-2020	3.37	6.78	12.89	19.19	24.73	28.72	31.10	31.42	25.74	18.56	11.05	4.71	18.19
	2021-2050	3.68	6.41	12.14	18.71	23.79	27.55	31.05	30.98	25.56	18.08	10.03	4.31	17.69
T min (°C)	1961-1990	-4.56	-2.38	1.38	6.60	11.46	14.82	16.57	16.04	12.34	7.09	2.50	-1.78	6.67
	1991-2020	-3.25	-1.53	2.45	7.04	11.76	15.80	17.61	17.49	12.85	7.87	3.22	-1.54	7.48
	2021-2050	-3.12	-2.39	1.83	6.33	11.13	14.78	17.65	17.26	12.50	6.90	1.88	-2.10	6.89
Precip (mm)	1961-1990	42.76	40.53	39.97	46.49	70.10	78.27	56.66	60.08	44.80	32.50	52.99	46.12	611.29
	1991-2020	42.09	34.67	44.48	49.06	72.26	74.36	63.82	45.63	58.58	58.98	42.44	47.80	634.17
	2021-2050	26.61	25.60	38.87	43.27	51.42	72.30	42.75	26.70	33.92	35.68	48.27	29.28	474.67
UR (%)	1961-1990	86.81	84.01	76.60	70.75	70.21	70.28	68.17	68.77	72.40	77.76	85.38	88.43	76.63
	1991-2020	87.57	81.70	71.97	69.58	69.90	68.64	65.03	64.06	70.27	81.15	86.18	87.93	75.33
	2021-2050	83.94	78.30	73.56	68.46	69.26	63.37	51.54	46.33	55.78	68.38	80.37	83.05	68.53
v (m/s)	1961-1990	2.22	2.41	2.43	2.37	2.12	1.83	1.55	1.38	1.29	1.56	1.88	1.91	1.91
	1991-2020	1.49	1.58	1.77	1.61	1.34	1.12	1.08	0.92	1.15	1.23	1.39	1.53	1.35
	2021-2050	2.92	3.15	3.40	3.25	2.97	2.74	2.73	2.70	2.67	2.72	2.72	2.90	2.91
P (hPa)	1961-1990	1009.96	1008.33	1007.28	1003.41	1004.25	1003.59	1004.07	1004.97	1007.75	1010.58	1009.22	1008.89	1006.86
	1991-2020	1010.57	1008.94	1006.90	1004.56	1004.43	1003.98	1003.55	1004.89	1006.85	1009.80	1010.10	1010.85	1007.12
	2021-2050	1010.77	1009.72	1007.56	1005.26	1004.43	1004.16	1005.21	1006.44	1007.93	1010.97	1010.24	1010.67	1003.78
Sunshine (hours)	1961-1990	68.42	81.76	133.35	181.46	241.19	261.71	287.08	276.15	218.97	174.87	87.48	60.72	2073.15
	1991-2020	69.44	99.83	144.70	180.21	227.95	244.11	269.97	260.71	189.47	138.06	76.99	59.00	1960.45
	2021-2050	70.54	106.59	143.12	185.09	226.35	251.21	278.26	268.45	189.60	135.83	79.42	59.94	1994.40
Cloud cover (tenths)	1961-1990	6.89	6.92	6.19	5.72	5.36	4.90	4.02	3.71	3.81	4.38	6.43	7.00	5.44
	1991-2020	6.52	5.93	5.66	5.27	4.99	4.48	3.62	3.10	3.98	4.90	6.30	6.57	5.11
	2021-2050	6.66	5.65	5.59	5.29	5.13	4.06	3.10	2.76	3.90	5.25	6.28	6.50	5.02
Snow depth (cm)	1961-1990	7.56	5.53	1.38	0.00						0.00	0.96	2.36	17.80
	1991-2020	7.31	5.54	2.02	0.00						0.00	0.79	3.24	18.77
	2021-2050	7.33	5.27	1.48	0.00						0.00	0.61	3.00	20.70

Calarasi		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-1.57	0.62	5.28	11.66	17.10	20.82	22.59	21.74	17.59	11.60	6.24	1.23	11.24
	1991-2020	-0.38	1.81	6.49	12.09	17.74	22.03	24.06	23.55	18.36	12.32	6.71	1.28	12.12
	2021-2050	0.31	1.83	6.62	12.01	17.04	20.91	24.19	23.91	18.47	11.95	5.91	1.19	12.03
T max (°C)	1961-1990	2.14	4.80	10.94	18.31	23.54	27.24	29.22	28.84	25.10	18.59	11.13	4.82	17.06
	1991-2020	3.62	6.80	12.47	18.86	24.63	28.79	31.04	31.07	25.72	18.81	11.68	5.29	18.23
	2021-2050	3.94	6.59	12.46	18.63	23.67	27.49	31.03	31.09	25.78	18.37	10.83	4.66	17.88
T min (°C)	1961-1990	-4.80	-2.65	0.87	5.92	10.86	14.48	16.09	15.16	11.38	6.27	2.27	-1.70	6.18
	1991-2020	-3.70	-2.10	1.68	6.04	11.20	15.62	17.30	16.71	12.34	7.43	2.81	-1.95	6.95
	2021-2050	-2.79	-2.29	2.18	6.31	10.98	14.95	17.62	17.87	12.57	6.99	2.37	-1.67	7.04
Precip (mm)	1961-1990	34.94	34.30	34.75	40.16	65.24	71.44	55.57	52.67	43.20	36.69	43.70	41.32	553.97
	1991-2020	40.45	28.25	40.87	42.68	52.22	68.25	53.84	42.68	53.79	50.38	46.92	46.77	567.10
	2021-2050	22.97	22.29	32.39	35.95	44.95	58.76	32.57	18.84	31.93	37.68	46.06	25.52	409.90
UR (%)	1961-1990	85.59	83.64	77.71	70.79	69.73	69.06	67.96	68.82	72.66	77.61	83.97	87.35	76.24
	1991-2020	85.46	80.26	72.87	67.61	67.08	66.29	63.69	63.55	68.57	78.51	83.60	86.21	73.64
	2021-2050	81.97	76.99	70.77	66.41	67.56	61.00	49.96	46.69	55.05	67.12	77.94	81.55	66.92
v (m/s)	1961-1990	3.38	3.60	3.44	3.30	2.99	2.64	2.37	2.18	2.06	2.24	2.78	3.12	2.84
	1991-2020	2.71	2.79	2.87	2.71	2.53	2.68	1.97	1.87	2.06	1.93	2.25	2.58	2.33
	2021-2050	3.78	3.99	4.09	3.83	3.47	3.28	3.27	3.27	3.28	3.40	3.55	3.69	3.58
P (hPa)	1961-1990	1018.04	1016.38	1015.21	1011.25	1011.85	1011.08	1011.40	1012.37	1015.30	1018.30	1017.15	1016.90	1014.60
	1991-2020	1018.33	1016.73	1014.54	1012.12	1011.76	1011.14	1010.58	1011.98	1014.16	1017.23	1017.79	1018.66	1014.58
	2021-2050	1016.50	1015.42	1013.23	1010.89	1009.85	1009.43	1010.38	1011.64	1013.31	1016.40	1015.85	1016.37	1013.23
Sunshine (hours)	1961-1990	64.16	80.79	133.79	186.66	242.27	254.42	295.45	288.26	220.05	178.94	88.59	58.11	2091.48
	1991-2020	82.39	114.34	154.85	205.12	259.63	280.78	317.24	302.14	221.87	158.78	96.68	76.38	2270.19
	2021-2050	83.65	120.99	151.57	212.22	259.94	291.10	326.30	309.48	221.80	155.53	100.05	76.80	2309.43
Cloud cover (tenths)	1961-1990	6.86	7.06	6.45	5.88	5.36	4.79	3.85	3.49	3.92	4.52	6.43	7.09	5.47
	1991-2020	6.83	6.27	6.04	5.63	5.22	4.65	3.69	3.28	4.24	5.18	6.51	6.76	5.36
	2021-2050	6.88	5.82	6.02	5.55	5.27	4.34	3.28	3.03	4.18	5.29	6.45	6.62	5.22
Snow depth (cm)	1961-1990	3.90	3.02	0.36	0.00						0.00	0.47	1.60	9.34
	1991-2020	4.58	3.54	0.82	0.00						0.00	0.17	1.76	10.81
	2021-2050	4.45	5.29	1.71	0.00						0.00	0.16	2.01	11.62

Calimani		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-9.29	-9.13	-6.47	-1.75	3.34	6.21	7.85	7.82	4.74	0.97	-3.66	-7.32	-0.56
	1991-2020	-8.36	-8.33	-6.23	-1.25	3.93	7.80	9.56	9.77	5.19	1.45	-2.54	-6.79	0.93
	2021-2050	-5.21	-4.77	-2.01	2.76	8.18	10.91	13.58	13.02	8.98	3.98	-1.39	-3.98	3.67
T max (°C)	1961-1990	-6.15	-5.82	-3.00	1.70	6.78	9.60	11.35	11.52	8.42	4.63	-0.74	-4.52	2.82
	1991-2020	-5.58	-5.28	-2.97	1.89	7.50	11.43	13.18	13.39	8.56	4.61	0.37	-4.01	3.59
	2021-2050	-1.68	-1.01	1.82	7.52	13.42	15.56	18.65	18.35	14.22	8.66	2.22	-0.67	8.09
T min (°C)	1961-1990	-12.07	-11.78	-9.07	-4.31	0.63	3.43	5.13	5.17	2.25	-1.62	-6.17	-9.87	-3.19
	1991-2020	-10.80	-10.95	-8.79	-3.63	1.30	5.10	6.81	7.22	2.77	-1.03	-4.94	-9.21	-2.18
	2021-2050	-8.11	-8.11	-4.96	-0.51	4.27	7.92	10.29	9.68	6.81	1.99	-2.78	-6.64	0.82
Precip (mm)	1961-1990	61.44	53.25	60.64	90.56	129.74	162.98	151.87	122.87	75.22	64.52	70.19	68.07	1111.36
	1991-2020	46.98	63.23	68.66	70.56	131.85	171.89	164.62	131.93	100.51	79.47	73.34	61.61	1164.66
	2021-2050	38.58	38.80	61.34	63.68	76.46	121.06	104.31	86.79	48.34	47.19	60.73	38.51	795.77
UR (%)	1961-1990	91.17	89.78	85.49	81.74	81.65	83.75	84.00	84.64	86.11	86.60	91.58	93.72	86.69
	1991-2020	85.58	87.07	88.31	86.75	86.31	85.91	85.57	83.18	86.20	83.85	83.23	85.18	85.59
	2021-2050	86.53	83.53	80.37	76.29	80.96	80.19	74.88	70.19	75.58	81.43	82.40	84.68	79.75
v (m/s)	1961-1990	6.63	7.31	7.78	7.98	7.31	7.19	6.86	6.20	6.45	6.23	6.69	6.50	6.93
	1991-2020	9.37	9.16	9.01	7.25	6.37	5.91	5.53	5.27	6.35	7.07	7.95	9.08	7.36
	2021-2050	3.43	3.55	3.56	3.32	3.11	2.87	2.57	2.56	2.67	2.90	3.27	3.35	3.10
P (hPa)	1961-1990	783.90	783.14	784.77	785.77	790.25	791.83	793.28	794.11	793.74	792.50	787.62	784.46	788.78
	1991-2020	791.05	790.86	791.66	793.51	796.94	799.11	800.16	801.08	799.09	798.04	794.75	792.47	795.73
	2021-2050	868.36	867.76	867.56	868.02	870.18	872.11	874.68	876.16	874.72	874.35	870.66	868.57	871.09
Sunshine (hours)	1961-1990	45.07	58.20	99.46	117.57	151.90	161.10	182.68	183.64	140.26	113.57	46.45	29.49	1329.41
	1991-2020	87.16	87.28	107.13	134.90	161.96	181.58	197.13	209.37	151.15	139.16	104.45	84.63	1645.89
	2021-2050	86.53	92.48	109.81	139.59	166.07	190.46	195.52	211.26	142.08	144.56	107.30	83.10	1668.76
Cloud cover (tenths)	1961-1990	6.33	6.66	6.74	7.09	7.02	7.05	6.66	6.03	6.06	5.49	6.70	6.89	6.56
	1991-2020	6.83	6.97	7.04	6.90	6.96	6.88	6.55	5.82	6.51	6.16	6.47	6.87	6.66
	2021-2050	6.67	6.86	6.80	6.94	6.89	6.57	6.72	5.87	7.20	6.12	6.58	6.83	6.67
Snow depth (cm)	1961-1990	58.81	77.61	77.47	31.42						1.44	7.53	32.87	287.09
	1991-2020	44.69	65.27	79.76	56.81						2.34	9.52	28.03	285.10
	2021-2050	43.83	64.13	79.78	62.28						1.85	6.54	30.99	289.40

Ceahlau Toaca		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-8.40	-8.19	-5.35	-0.63	4.55	7.41	9.01	9.09	5.93	1.93	-2.75	-6.52	0.51
	1991-2020	-7.70	-7.58	-5.44	-0.21	5.20	8.95	10.71	10.82	6.20	2.34	-1.58	-6.19	1.20
	2021-2050	-1.94	-1.67	3.12	7.89	12.77	15.85	18.37	17.95	13.09	7.67	2.82	-0.50	7.95
T max (°C)	1961-1990	-5.23	-4.71	-1.52	3.33	8.80	11.77	13.46	13.71	10.23	5.76	0.36	-3.60	4.36
	1991-2020	-5.01	-4.64	-2.10	3.41	9.34	13.22	15.07	15.23	10.06	5.66	1.25	-3.51	4.83
	2021-2050	2.82	3.78	8.61	14.46	18.98	21.91	24.99	25.03	20.07	14.13	7.81	3.71	13.86
T min (°C)	1961-1990	-11.20	-10.95	-8.22	-3.38	1.65	4.48	6.04	6.20	3.18	-0.93	-5.43	-9.17	-2.31
	1991-2020	-10.16	-10.20	-7.96	-2.73	2.37	5.97	7.70	8.09	3.62	-0.23	-4.09	-8.62	-1.35
	2021-2050	-5.42	-5.64	-0.77	2.93	7.71	11.67	13.81	13.09	8.80	4.07	-0.05	-3.55	3.89
Precip (mm)	1961-1990	45.02	44.92	43.29	62.08	84.96	108.55	108.01	92.31	43.85	34.15	42.50	40.82	750.45
	1991-2020	27.79	31.52	40.88	55.46	90.64	133.42	124.04	107.12	55.97	44.96	28.05	33.84	773.70
	2021-2050	17.43	19.35	39.57	49.53	72.54	97.17	84.75	61.00	36.59	30.78	25.56	20.19	554.50
UR (%)	1961-1990	82.81	85.48	84.93	85.77	84.43	86.27	86.21	85.14	84.31	78.80	83.53	85.44	84.43
	1991-2020	90.93	91.71	92.55	90.77	90.81	91.63	90.91	89.72	90.86	87.39	85.31	89.00	90.13
	2021-2050	82.53	80.07	77.11	74.37	78.56	75.58	68.58	63.69	68.80	78.26	80.65	81.23	75.79
v (m/s)	1961-1990	11.99	11.42	10.21	8.96	7.19	7.05	6.90	6.05	7.69	8.80	11.72	12.46	9.20
	1991-2020	10.97	10.66	9.52	7.33	6.34	5.59	6.36	5.53	7.03	8.07	9.88	10.77	8.17
	2021-2050	3.58	3.42	3.40	3.12	2.89	2.71	2.48	2.52	2.60	2.80	3.25	3.44	3.02
P (hPa)	1961-1990	806.38	805.74	807.29	808.05	812.21	813.53	815.02	815.76	815.68	814.70	809.80	806.74	810.91
	1991-2020	804.49	803.64	804.29	806.41	809.80	811.95	812.91	814.24	812.42	811.25	808.16	805.57	808.76
	2021-2050	909.11	908.63	908.04	907.80	909.34	910.64	912.79	914.29	913.50	914.03	910.85	909.17	910.69
Sunshine (hours)	1961-1990	93.51	92.67	129.35	137.33	169.05	173.06	194.66	208.38	173.40	161.90	93.67	77.60	1704.58
	1991-2020	82.37	90.17	112.51	145.94	179.63	186.77	208.30	217.84	157.32	145.98	110.26	81.64	1718.74
	2021-2050	83.18	94.59	112.76	150.25	176.82	196.46	208.84	218.42	151.17	143.58	113.67	81.29	1731.03
Cloud cover (tenths)	1961-1990	6.47	6.91	6.93	7.19	7.03	7.06	6.62	6.01	6.04	5.62	6.70	6.86	6.62
	1991-2020	6.78	7.04	7.28	6.94	6.77	6.83	6.35	5.64	6.36	6.15	6.23	6.57	6.58
	2021-2050	6.49	7.02	7.18	6.86	6.83	6.49	6.38	5.73	7.00	6.47	6.37	6.47	6.61
Snow depth (cm)	1961-1990	39.49	52.16	55.56	39.92						1.67	7.95	24.56	221.25
	1991-2020	40.67	55.55	62.28	45.30						2.76	7.97	22.93	236.32
	2021-2050	42.03	54.35	74.33	86.85						2.78	4.61	29.95	294.90

Cluj-Napoca		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-4.02	-1.26	3.75	9.30	14.22	17.05	18.55	17.94	14.22	8.68	3.43	-1.28	8.38
	1991-2020	-2.43	-0.38	4.36	10.18	15.01	18.63	20.17	19.93	14.82	9.43	3.99	-1.07	9.39
	2021-2050	-1.38	0.01	5.29	10.56	15.34	18.18	20.76	20.44	15.45	9.79	3.73	-0.19	9.83
T max (°C)	1961-1990	-0.76	2.60	9.25	15.43	20.41	23.14	24.91	24.70	21.18	15.23	7.35	1.50	13.75
	1991-2020	0.95	4.14	10.28	16.70	21.61	25.07	26.95	27.24	21.71	15.73	8.46	1.96	15.07
	2021-2050	1.87	4.08	11.07	16.80	21.45	24.35	27.17	27.17	21.89	15.52	7.89	2.93	15.18
T min (°C)	1961-1990	-6.67	-4.13	-0.18	4.47	8.88	11.73	13.02	12.53	9.18	4.22	0.62	-3.54	4.18
	1991-2020	-4.91	-3.45	0.14	4.91	9.26	12.95	14.34	14.06	9.84	5.18	0.84	-3.32	4.99
	2021-2050	-4.16	-3.42	1.12	5.33	10.01	13.07	15.39	14.72	10.69	5.51	0.64	-2.74	5.51
Precip (mm)	1961-1990	28.82	25.34	27.53	46.79	80.43	92.16	91.51	72.18	36.05	32.82	33.18	36.33	603.13
	1991-2020	27.30	24.78	34.62	51.05	71.19	91.00	87.25	64.73	55.51	45.28	33.76	33.98	620.44
	2021-2050	27.02	22.44	31.93	42.45	60.41	81.92	59.93	47.47	35.14	30.23	29.99	30.42	499.35
UR (%)	1961-1990	86.08	82.56	75.02	71.59	73.65	74.68	73.74	76.26	78.22	80.86	85.61	88.21	78.87
	1991-2020	87.41	81.21	70.63	66.57	70.77	72.27	71.90	71.96	75.79	80.44	84.81	88.35	74.84
	2021-2050	84.56	79.61	76.20	75.66	78.64	75.35	68.00	62.89	69.56	77.47	83.42	83.48	76.24
v (m/s)	1961-1990	1.65	1.88	2.26	2.45	2.27	2.29	2.25	1.85	1.69	1.60	1.74	1.48	1.95
	1991-2020	1.63	1.84	2.13	2.10	2.13	2.14	1.91	1.80	1.81	1.74	1.69	1.54	1.88
	2021-2050	2.58	2.86	3.04	3.05	2.77	2.78	2.66	2.64	2.62	2.55	2.58	2.55	2.72
P (hPa)	1961-1990	972.85	971.07	970.33	967.83	969.60	969.68	970.51	971.13	973.24	974.85	972.69	972.03	971.32
	1991-2020	970.08	968.42	966.96	965.44	966.37	966.77	966.81	967.93	968.93	970.45	969.66	970.41	968.18
	2021-2050	963.83	961.19	961.68	960.88	961.12	961.66	963.44	964.77	964.80	966.98	964.40	963.92	963.30
Sunshine (hours)	1961-1990	68.33	91.15	154.69	175.01	227.91	241.96	274.23	259.66	206.52	168.54	76.18	49.59	1993.75
	1991-2020	70.17	100.89	159.17	188.76	230.12	253.15	265.74	260.78	190.18	153.53	89.34	54.65	2016.47
	2021-2050	69.24	104.67	164.83	187.35	233.85	256.91	266.25	261.76	182.81	162.23	92.32	54.06	2036.28
Cloud cover (tenths)	1961-1990	7.16	6.97	6.39	6.57	6.29	5.99	5.21	4.90	5.14	5.01	7.14	7.83	6.22
	1991-2020	7.36	6.92	6.48	6.31	6.28	5.78	5.22	4.61	5.63	5.74	6.82	7.66	6.23
	2021-2050	7.50	6.70	6.81	6.66	6.19	5.61	5.22	4.64	6.14	5.42	6.74	7.57	6.19
Snow depth (cm)	1961-1990	6.68	7.38	1.23	0.00						0.00	0.07	2.77	18.13
	1991-2020	4.58	4.18	0.99	0.03						0.00		2.31	12.51
	2021-2050	4.25	3.31	0.84	0.02						0.00	0.19	3.19	11.80

Craiova		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-2.25	-0.02	4.79	11.17	16.42	19.74	21.78	21.17	17.32	11.12	5.13	0.11	10.54
	1991-2020	-0.96	1.32	6.16	11.91	17.13	21.21	23.23	23.05	17.74	11.68	5.74	0.30	11.54
	2021-2050	-0.14	1.54	6.26	11.92	16.85	20.29	23.69	23.51	17.98	11.55	5.11	0.88	11.62
T max (°C)	1961-1990	1.31	4.07	10.09	17.26	22.65	25.95	28.36	28.07	24.32	17.52	9.54	3.41	16.05
	1991-2020	2.98	6.14	12.07	18.15	23.54	27.78	30.19	30.31	24.61	17.59	9.90	3.85	17.26
	2021-2050	3.49	6.34	11.91	18.28	23.19	26.84	30.67	30.69	25.19	17.67	9.56	4.34	17.35
T min (°C)	1961-1990	-5.15	-3.03	0.89	6.12	11.00	14.00	15.65	15.33	11.88	6.46	1.88	-2.46	6.05
	1991-2020	-4.00	-2.23	1.79	6.70	11.45	15.15	16.93	16.90	12.42	7.38	2.61	-2.48	6.88
	2021-2050	-2.76	-2.24	2.13	6.78	11.32	14.67	17.39	17.22	12.45	7.00	1.78	-1.64	6.99
Precip (mm)	1961-1990	39.04	40.79	42.96	55.34	70.10	79.21	59.92	47.69	38.44	37.77	56.92	51.01	619.20
	1991-2020	42.53	33.92	45.88	48.82	67.59	74.51	73.29	47.47	52.54	51.89	48.41	50.18	637.04
	2021-2050	31.94	29.03	43.08	44.04	54.00	66.08	36.29	24.59	29.68	34.74	45.46	32.55	471.47
UR (%)	1961-1990	89.58	87.22	80.61	73.92	73.00	72.67	69.82	70.18	72.77	78.45	86.73	90.94	78.82
	1991-2020	87.66	80.91	71.88	67.34	69.82	69.33	65.70	64.42	68.78	78.37	85.88	89.70	75.01
	2021-2050	84.33	78.93	73.93	70.61	70.87	62.64	51.27	49.60	56.06	69.11	81.69	84.01	69.42
v (m/s)	1961-1990	3.12	3.57	4.08	4.29	3.71	3.33	3.17	3.18	3.07	3.21	3.27	2.91	3.41
	1991-2020	2.68	3.22	3.61	3.62	3.18	2.83	2.73	2.67	3.02	2.86	2.81	2.63	2.99
	2021-2050	3.02	3.36	3.66	3.50	3.13	3.05	3.03	3.06	2.99	3.06	2.92	3.01	3.15
P (hPa)	1961-1990	997.86	996.15	995.14	991.57	992.77	992.39	992.90	993.62	996.21	998.73	997.25	996.86	995.12
	1991-2020	996.99	995.35	993.41	991.21	991.41	991.25	990.90	992.13	993.83	996.48	996.57	997.23	993.90
	2021-2050	1002.54	1001.43	999.23	997.15	996.56	996.51	997.75	998.83	1000.08	1002.74	1001.97	1002.53	999.78
Sunshine (hours)	1961-1990	70.39	85.42	139.05	193.19	254.25	272.96	315.99	294.60	231.04	176.56	92.56	64.97	2190.96
	1991-2020	93.49	124.99	176.87	210.31	253.86	275.76	299.39	291.41	218.82	159.09	89.19	74.93	2268.11
	2021-2050	94.67	133.94	180.09	214.53	254.47	282.43	310.04	299.62	216.67	156.62	92.94	76.73	2312.75
Cloud cover (tenths)	1961-1990	7.09	7.01	6.50	6.06	5.91	5.19	4.16	3.87	4.19	4.75	6.57	7.15	5.70
	1991-2020	6.68	6.27	6.00	6.03	5.88	5.07	4.22	3.92	4.89	5.59	6.91	6.91	5.70
	2021-2050	6.78	5.88	5.54	6.10	6.02	4.80	3.76	3.50	4.91	5.75	6.63	6.77	5.54
Snow depth (cm)	1961-1990	7.41	5.28	1.07	0.00						0.00	0.67	3.04	17.47
	1991-2020	6.66	5.33	1.20	0.03						0.00	1.24	3.21	17.52
	2021-2050	6.84	4.93	0.85	0.01						0.00	0.51		20.63

Constanta		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	0.71	1.83	4.79	10.10	15.72	20.17	22.23	22.00	18.49	13.30	8.21	3.41	11.75
	1991-2020	1.49	2.84	6.30	10.91	16.73	21.56	23.95	23.93	19.27	13.90	8.52	3.31	12.73
	2021-2050	1.88	3.02	6.50	10.77	15.98	20.66	23.84	23.71	18.89	13.24	7.63	2.64	12.40
T max (°C)	1961-1990	3.73	4.86	8.07	13.75	19.27	23.85	25.91	25.79	22.37	16.98	11.65	6.37	15.22
	1991-2020	4.68	6.49	10.15	14.73	20.64	25.47	27.88	27.89	23.26	17.64	11.92	6.55	16.44
	2021-2050	5.08	6.69	10.34	15.20	20.30	25.20	28.36	28.36	23.63	17.62	11.47	5.77	16.50
T min (°C)	1961-1990	-1.92	-0.58	2.32	7.24	12.44	16.43	18.34	18.19	14.93	10.09	5.34	0.84	8.64
	1991-2020	-1.11	0.12	3.42	7.82	13.21	17.66	19.81	19.95	15.67	10.88	5.82	0.67	9.49
	2021-2050	-0.85	-0.19	3.34	7.26	11.89	16.34	19.19	19.05	14.72	9.63	4.55	0.11	8.74
Precip (mm)	1961-1990	32.93	32.05	28.90	31.97	41.74	43.24	32.41	35.55	31.46	33.53	46.42	41.85	432.04
	1991-2020	35.68	27.08	37.83	32.25	45.32	42.77	42.32	36.64	44.14	44.55	41.94	41.24	471.75
	2021-2050	21.63	19.98	25.40	26.82	29.38	44.28	22.70	13.61	21.46	34.87	41.42	24.44	326.00
UR (%)	1961-1990	84.60	83.95	83.42	81.64	79.70	75.96	74.87	75.30	77.93	80.71	84.48	86.29	80.74
	1991-2020	84.91	81.99	78.45	72.43	76.22	72.45	71.08	71.40	73.93	80.02	83.75	85.53	78.10
	2021-2050	80.83	77.33	74.62	74.15	75.75	69.75	63.71	61.95	64.81	70.03	77.47	79.96	72.53
v (m/s)	1961-1990	5.48	5.52	4.98	4.46	3.95	3.79	3.78	3.74	4.18	4.85	4.85	5.28	4.57
	1991-2020	3.54	3.46	3.37	2.89	2.70	2.61	2.46	2.44	2.81	3.00	3.11	3.43	2.99
	2021-2050	4.89	4.75	4.65	4.09	3.72	3.57	3.62	3.66	3.75	4.22	4.45	4.85	4.18
P (hPa)	1961-1990	1017.93	1016.49	1015.68	1012.02	1012.66	1011.71	1011.92	1012.90	1015.84	1018.79	1017.49	1016.98	1015.03
	1991-2020	1018.96	1017.61	1015.60	1013.51	1013.09	1012.22	1011.54	1012.96	1015.12	1018.10	1018.68	1019.28	1015.56
	2021-2050	1016.85	1015.87	1013.92	1011.83	1010.76	1010.25	1011.17	1012.42	1014.09	1016.92	1016.34	1016.70	1013.93
Sunshine (hours)	1961-1990	77.05	83.27	132.40	183.52	261.66	283.34	320.77	308.88	240.15	185.13	98.11	70.96	2245.25
	1991-2020	88.90	112.43	142.94	197.97	269.52	294.11	331.44	304.82	228.58	155.24	99.76	85.91	2313.61
	2021-2050	90.67	117.56	139.99	202.07	272.26	299.88	332.89	308.56	226.04	155.46	103.85	88.83	2338.06
Cloud cover (tenths)	1961-1990	6.87	7.12	6.68	6.00	5.21	4.27	3.32	3.06	3.82	4.82	6.44	7.07	5.39
	1991-2020	6.73	6.37	6.00	5.48	4.91	4.08	3.17	2.94	4.11	5.33	6.53	6.56	5.18
	2021-2050	6.74	5.87	5.99	5.43	4.86	3.66	2.77	2.55	3.91	5.55	6.32	6.21	4.99
Snow depth (cm)	1961-1990	1.10	1.13	0.17	0.00						0.00	0.10	0.20	2.70
	1991-2020	1.33	0.60	0.17	0.00						0.00	0.00	0.34	2.43
	2021-2050	0.00	0.00	0.00	0.00						0.00	0.00	0.00	0.00

Dragasani		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-1.70	0.16	4.84	11.09	16.13	19.34	21.39	20.89	17.34	11.42	5.45	0.52	10.57
	1991-2020	-0.35	1.71	6.30	11.90	16.90	20.86	22.93	22.88	17.71	11.94	6.04	0.91	11.64
	2021-2050	-0.16	1.61	5.70	11.39	16.21	19.52	22.86	22.68	17.25	11.05	4.77	0.83	11.14
T max (°C)	1961-1990	2.69	4.77	10.47	17.35	22.51	25.73	28.06	27.77	24.14	17.65	10.18	4.62	16.33
	1991-2020	4.10	6.86	12.39	18.30	23.41	27.44	29.92	30.06	24.48	17.87	10.56	4.97	17.53
	2021-2050	3.77	6.80	11.25	17.56	22.37	25.83	29.56	29.64	24.19	17.10	9.34	4.58	16.83
T min (°C)	1961-1990	-4.69	-2.73	1.17	6.58	11.16	14.11	15.83	15.63	12.43	7.11	2.36	-2.20	6.40
	1991-2020	-3.38	-1.70	2.16	7.17	11.69	15.32	17.08	17.28	12.75	7.89	2.99	-1.89	7.28
	2021-2050	-3.05	-2.26	1.70	6.31	10.83	13.34	16.93	16.76	12.17	6.66	1.65	-1.91	6.65
Precip (mm)	1961-1990	38.75	40.33	37.18	54.98	88.29	86.95	74.66	55.62	43.53	44.72	55.19	48.44	668.65
	1991-2020	37.80	32.02	40.22	52.51	78.57	81.13	80.32	58.17	57.54	56.09	43.42	45.41	663.19
	2021-2050	33.05	27.28	42.28	46.21	54.69	82.55	44.25	32.20	30.84	37.26	45.60	30.49	506.71
UR (%)	1961-1990	84.51	82.97	76.17	70.52	71.44	72.13	69.25	69.56	70.66	76.16	83.18	86.64	76.10
	1991-2020	83.79	78.04	69.56	66.45	70.18	70.04	65.47	64.73	68.73	76.74	83.43	85.89	73.59
	2021-2050	84.06	78.63	74.61	70.85	71.75	64.20	54.10	50.88	57.87	69.46	81.50	83.80	70.14
v (m/s)	1961-1990	2.63	3.08	3.51	3.77	3.28	2.83	2.42	2.27	2.41	2.57	2.82	2.41	2.83
	1991-2020	2.20	2.65	3.02	3.04	2.67	2.28	2.16	1.94	2.34	2.24	2.23	2.19	2.41
	2021-2050	2.59	2.91	3.36	3.35	3.01	2.90	2.89	2.97	2.89	2.74	2.58	2.49	2.89
P (hPa)	1961-1990	985.69	984.20	983.50	980.29	981.67	981.39	982.00	982.77	985.19	987.42	985.59	985.09	983.73
	1991-2020	986.51	985.04	983.31	981.48	981.87	981.67	981.60	982.90	984.35	986.70	986.85	986.86	984.11
	2021-2050	994.86	993.83	991.84	989.93	989.49	989.55	990.88	992.05	993.11	995.65	994.61	994.84	992.55
Sunshine (hours)	1961-1990	91.40	96.30	146.89	188.71	243.86	273.65	307.21	282.50	227.02	181.50	100.46	80.61	2220.13
	1991-2020	98.45	119.98	166.72	201.41	257.42	285.25	321.14	302.47	220.76	164.05	94.49	82.63	2314.77
	2021-2050	99.52	128.07	169.36	204.87	258.41	292.08	329.64	311.00	219.70	162.24	100.24	84.12	2359.25
Cloud cover (tenths)	1961-1990	6.29	6.55	6.00	5.66	5.28	4.49	3.62	3.39	3.76	4.27	6.03	6.47	5.15
	1991-2020	6.14	5.83	5.70	5.66	5.41	4.63	3.78	3.53	4.46	5.18	6.52	6.48	5.28
	2021-2050	6.24	5.56	5.39	5.67	5.48	4.29	3.50	3.14	4.58	5.34	6.30	6.43	5.16
Snow depth (cm)	1961-1990	6.17	4.27	0.83	0.00						0.00	0.60	2.47	14.35
	1991-2020	5.32	4.51	0.99	0.00						0.00	0.83	2.38	13.92
	2021-2050	6.50	4.43	0.77	0.00						0.00	0.40	2.34	17.94

Drobeta-Turnu Severin		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-0.88	1.33	5.91	12.04	17.16	20.54	22.67	22.20	18.22	12.04	6.23	1.47	11.58
	1991-2020	-0.59	2.49	7.15	12.73	17.93	22.08	24.22	24.01	18.52	12.49	6.74	1.66	12.59
	2021-2050	0.98	2.48	7.34	12.68	17.55	20.83	23.91	23.74	18.31	12.27	6.12	2.29	12.36
T max (°C)	1961-1990	2.57	5.39	11.15	18.12	23.29	26.57	29.22	28.97	24.98	18.20	10.51	4.80	16.98
	1991-2020	4.59	7.39	13.14	19.05	24.18	28.38	30.97	31.04	25.15	18.33	10.92	5.27	18.20
	2021-2050	4.61	7.30	13.00	19.29	24.23	27.49	31.34	31.51	25.82	18.45	10.55	5.77	18.28
T min (°C)	1961-1990	-4.02	-1.88	1.76	6.87	11.56	14.73	16.34	16.24	12.90	7.46	2.79	-1.45	6.94
	1991-2020	-2.67	-1.25	2.48	7.37	12.26	15.97	17.78	17.91	13.51	8.42	3.57	-1.35	7.83
	2021-2050	-1.92	-1.17	2.80	7.14	11.57	14.71	17.35	17.15	13.00	7.90	2.88	-0.49	7.58
Precip (mm)	1961-1990	50.73	53.15	53.33	63.57	77.60	68.35	54.41	41.03	42.78	52.73	63.26	65.26	686.19
	1991-2020	46.19	42.66	42.26	57.05	68.99	66.55	66.10	41.15	55.04	55.36	54.40	63.95	659.70
	2021-2050	37.48	31.99	44.19	46.90	50.31	61.16	29.77	26.28	29.98	39.01	47.12	38.48	482.67
UR (%)	1961-1990	82.90	80.74	74.63	70.45	70.20	68.39	64.59	65.78	69.32	75.59	81.13	83.56	73.94
	1991-2020	80.37	74.70	67.85	64.95	66.27	63.94	59.89	61.00	66.34	75.45	80.43	81.99	70.20
	2021-2050	83.68	78.66	74.77	68.85	69.76	62.72	52.23	47.84	56.03	69.02	80.99	82.68	68.94
v (m/s)	1961-1990	2.56	2.54	2.57	2.64	2.35	2.59	2.76	2.33	2.20	1.90	2.15	2.34	2.41
	1991-2020	1.98	2.20	2.22	2.01	1.88	2.02	2.03	1.79	1.79	1.68	1.73	1.75	1.92
	2021-2050	2.77	3.09	3.22	3.23	3.01	3.13	3.04	3.10	3.00	2.82	2.72	2.68	2.98
P (hPa)	1961-1990	1011.74	1009.87	1008.61	1004.70	1005.67	1005.25	1005.70	1006.36	1009.13	1011.88	1010.77	1010.64	1008.36
	1991-2020	1012.49	1010.73	1008.51	1005.91	1005.83	1005.53	1005.12	1006.25	1008.29	1011.21	1011.61	1012.65	1008.68
	2021-2050	1003.86	1001.87	999.61	997.54	997.03	996.95	998.29	999.38	1000.55	1003.15	1003.35	1003.95	1000.23
Sunshine (hours)	1961-1990	76.60	88.90	145.21	189.71	241.80	275.91	313.39	287.55	226.48	164.85	91.94	73.81	2176.16
	1991-2020	90.43	115.20	172.52	210.23	257.81	290.20	321.98	301.85	219.95	156.04	89.00	79.67	2304.87
	2021-2050	92.61	120.45	178.13	214.10	257.61	297.05	333.26	308.09	219.52	152.32	94.99	81.72	2349.85
Cloud cover (tenths)	1961-1990	6.91	6.88	6.31	5.92	5.57	4.80	3.80	3.69	4.02	4.90	6.42	6.79	5.50
	1991-2020	6.20	5.83	5.50	5.42	5.23	4.23	3.52	3.33	4.43	5.24	6.52	6.41	5.15
	2021-2050	6.24	5.47	5.01	5.65	5.19	4.03	3.16	3.16	4.49	5.40	6.13	6.25	5.02
Snow depth (cm)	1961-1990	7.30	6.06	1.18	0.02						0.00	0.53	2.37	17.46
	1991-2020	3.58	2.87	0.48	0.00						0.00	0.34	2.07	9.26
	2021-2050	4.25	3.20	0.48	0.00						0.00	0.01	4.31	12.24

Dumbraveni		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-4.49	-1.47	3.62	9.15	14.09	16.96	18.26	17.54	13.69	8.16	3.32	-1.38	8.12
	1991-2020	-2.70	-0.75	4.00	9.75	14.76	18.46	19.04	19.25	14.19	8.94	3.67	-1.21	9.02
	2021-2050	-1.78	-0.64	5.16	10.29	14.95	17.91	20.43	20.23	14.83	9.29	3.71	-0.67	9.48
T max (°C)	1961-1990	0.63	4.59	10.94	16.78	21.69	24.26	25.98	25.97	22.42	16.81	9.18	2.75	15.17
	1991-2020	2.22	5.61	11.25	17.58	22.44	25.88	27.73	28.03	22.69	17.16	10.14	3.18	16.16
	2021-2050	2.56	4.66	11.62	17.53	21.78	24.70	27.57	27.92	22.45	16.29	8.83	3.30	15.77
T min (°C)	1961-1990	-9.36	-6.31	-1.98	2.96	8.00	11.16	12.26	11.60	8.11	2.64	-0.93	-5.17	2.75
	1991-2020	-6.47	-5.07	-1.25	3.47	8.52	12.27	13.67	13.04	8.70	3.97	-0.46	-4.50	3.82
	2021-2050	-5.04	-4.62	0.38	4.38	8.91	12.33	14.60	13.91	9.30	4.22	-0.01	-3.61	4.56
Precip (mm)	1961-1990	29.51	24.43	31.64	52.38	87.04	96.25	91.02	65.60	44.57	37.01	36.00	32.67	628.12
	1991-2020	24.87	25.63	35.97	52.09	81.87	105.52	79.36	67.78	60.15	49.25	35.03	31.56	649.07
	2021-2050	24.41	20.30	34.69	43.99	65.37	95.52	67.33	49.69	42.32	35.42	36.71	28.10	543.86
UR (%)	1961-1990	88.95	85.60	78.10	75.06	77.29	79.10	79.30	81.08	83.12	84.64	87.67	91.00	82.58
	1991-2020	90.45	85.79	77.80	73.98	77.63	78.81	79.35	80.48	83.70	86.09	89.18	91.50	82.90
	2021-2050	83.47	78.63	74.46	71.58	77.11	73.41	65.55	60.37	64.48	73.73	81.31	82.70	73.90
v (m/s)	1961-1990	0.87	1.04	1.46	1.57	1.38	1.28	1.09	0.90	0.86	0.87	0.97	0.84	1.09
	1991-2020	1.22	1.38	1.70	1.79	1.56	1.49	1.36	1.16	1.20	1.24	1.28	1.19	1.38
	2021-2050	2.75	2.89	3.12	2.98	2.69	2.55	2.44	2.50	2.55	2.63	2.65	2.78	2.71
P (hPa)	1961-1990	979.81	977.99	977.08	974.38	975.97	975.95	976.78	977.44	979.69	981.54	979.61	979.05	977.94
	1991-2020	981.30	979.41	977.67	976.00	976.78	977.00	977.00	978.17	979.24	981.22	980.67	981.61	978.85
	2021-2050	968.44	967.80	968.16	966.98	965.27	965.77	967.51	968.82	969.06	970.72	969.03	968.69	968.20
Sunshine (hours)	1961-1990	70.59	92.35	156.00	172.72	221.60	227.40	255.80	253.69	200.01	166.54	84.63	51.38	1952.71
	1991-2020	68.89	96.95	148.35	186.36	228.82	252.20	269.89	266.79	187.65	154.31	89.03	59.88	2009.12
	2021-2050	69.00	100.74	150.53	186.45	229.72	257.09	271.40	270.79	181.70	158.12	89.79	59.08	2024.41
Cloud cover (tenths)	1961-1990	6.89	6.67	6.19	6.44	6.20	6.04	5.35	4.92	5.25	5.09	6.75	7.52	6.11
	1991-2020	7.05	6.66	6.25	6.10	6.13	5.58	5.12	4.45	5.52	5.43	6.55	7.25	6.02
	2021-2050	6.99	6.56	5.97	6.26	6.06	5.35	5.00	4.39	4.00	5.52	6.64	7.15	5.97
Snow depth (cm)	1961-1990	7.97	6.43	1.00	0.03						0.03	0.23	2.73	18.43
	1991-2020	4.87	4.36	1.02	0.10						0.00	0.52	2.45	13.22
	2021-2050	4.03	2.87	0.52	0.10						0.00	0.47	3.75	11.74

Focsani		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-2.73	-0.73	4.06	10.93	16.73	20.34	22.00	21.28	17.02	10.83	5.07	0.02	10.40
	1991-2020	-1.51	0.62	5.63	11.75	17.56	21.71	23.65	23.08	17.61	11.41	5.44	-0.15	11.40
	2021-2050	-0.53	0.90	5.94	11.84	17.10	20.48	23.60	23.31	17.66	11.21	5.06	0.42	11.41
T max (°C)	1961-1990	1.23	3.51	9.94	17.84	23.34	26.73	28.44	28.07	24.20	17.47	9.70	3.80	16.19
	1991-2020	2.51	5.71	11.80	18.47	24.35	28.02	30.20	30.12	24.58	17.59	10.11	3.62	17.26
	2021-2050	3.33	5.82	11.60	18.28	23.39	26.76	30.17	30.29	24.41	17.28	9.83	4.14	17.11
T min (°C)	1961-1990	-6.25	-4.11	-0.23	5.49	10.98	14.38	16.05	15.46	11.44	5.92	1.35	-3.26	5.60
	1991-2020	-4.87	-3.26	0.86	5.96	11.30	15.54	17.32	16.95	12.02	6.87	1.84	-3.19	6.45
	2021-2050	-2.41	-2.74	1.74	6.41	11.31	14.63	17.55	17.08	12.25	6.62	1.43	-2.42	6.70
Precip (mm)	1961-1990	32.97	34.46	32.06	49.22	67.38	72.96	63.64	54.39	39.67	28.70	42.02	35.78	553.25
	1991-2020	33.77	31.13	37.23	46.82	63.98	79.79	67.16	49.95	49.03	54.53	39.30	43.18	595.86
	2021-2050	15.93	16.96	30.74	35.29	48.44	66.05	40.89	26.58	27.13	29.90	31.36	15.99	335.25
UR (%)	1961-1990	82.01	80.54	75.50	70.02	69.96	69.84	69.76	70.36	73.47	76.45	81.83	84.17	75.33
	1991-2020	84.42	79.57	70.94	66.17	65.38	65.55	63.61	64.46	69.54	78.22	84.25	86.19	73.19
	2021-2050	81.30	76.54	71.82	65.50	67.74	63.11	53.00	45.84	54.08	67.51	77.65	80.18	67.02
v (m/s)	1961-1990	2.92	3.33	3.29	3.35	3.02	2.72	2.59	2.43	2.20	2.48	2.47	2.57	2.78
	1991-2020	2.24	2.43	2.91	2.61	2.59	2.45	2.43	2.26	2.15	2.10	2.11	2.10	2.27
	2021-2050	3.15	3.61	3.87	3.79	3.56	3.57	3.62	3.68	3.53	3.36	3.20	3.13	3.51
P (hPa)	1961-1990	1013.30	1011.99	1010.99	1007.16	1007.89	1006.95	1007.41	1008.46	1011.24	1014.12	1012.58	1012.06	1010.34
	1991-2020	1014.32	1012.81	1010.84	1008.62	1008.31	1007.69	1007.29	1008.88	1010.83	1013.71	1013.92	1014.59	1010.98
	2021-2050	1011.25	1010.54	1008.48	1006.15	1005.46	1005.03	1006.08	1007.54	1008.93	1012.35	1011.03	1010.96	1008.63
Sunshine (hours)	1961-1990	69.90	77.59	126.28	171.79	226.44	251.90	272.14	267.20	209.61	167.79	82.14	59.81	1982.58
	1991-2020	69.21	100.41	148.88	202.49	267.54	288.45	316.83	299.23	214.36	142.03	82.01	63.35	2194.78
	2021-2050	70.32	107.31	146.88	208.03	264.61	294.37	321.82	303.66	210.97	138.90	85.00	63.95	2215.82
Cloud cover (tenths)	1961-1990	6.85	7.09	6.60	6.21	5.79	5.34	4.73	4.26	4.54	4.95	6.68	7.20	5.85
	1991-2020	7.14	6.63	6.23	5.86	5.41	5.04	4.28	3.90	4.85	5.45	6.89	7.28	5.76
	2021-2050	7.11	6.34	6.04	5.68	5.46	4.83	4.01	3.78	5.30	5.97	7.03	7.14	5.72
Snow depth (cm)	1961-1990	5.83	6.53	2.58	0.06						0.02	0.63	2.00	17.65
	1991-2020	4.40	5.19	1.67	0.07						0.00	0.69	2.52	14.43
	2021-2050	4.90	3.61	1.22	0.04						0.00	0.48	3.46	13.71

Galati		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-2.22	-0.39	4.25	11.13	16.93	20.57	22.32	21.75	17.50	11.45	5.58	0.52	10.78
	1991-2020	-1.06	0.94	5.71	11.77	17.67	21.83	23.97	23.51	18.00	11.93	6.06	0.62	11.23
	2021-2050	-0.32	1.33	5.77	11.53	16.81	20.36	23.62	23.31	17.74	11.36	5.43	0.64	11.46
T max (°C)	1961-1990	1.31	3.32	9.26	16.99	22.75	26.44	28.43	28.01	23.94	17.30	9.75	3.66	15.93
	1991-2020	2.44	5.32	11.18	17.80	23.94	27.93	30.30	30.17	24.40	17.36	10.11	3.92	17.07
	2021-2050	3.17	5.80	10.87	17.55	22.99	26.35	29.80	29.88	24.23	17.00	9.75	3.90	16.78
T min (°C)	1961-1990	-4.98	-3.13	0.65	6.50	11.86	15.25	16.87	16.51	12.56	7.14	2.50	-1.99	6.64
	1991-2020	-3.73	-2.19	1.75	7.00	12.38	16.41	18.22	17.88	13.12	8.07	3.17	-1.90	7.52
	2021-2050	-2.76	-2.12	2.04	6.73	11.69	15.09	17.97	17.58	12.75	7.19	2.24	-1.81	7.21
Precip (mm)	1961-1990	28.86	31.83	27.14	37.84	50.74	68.28	45.64	46.14	42.16	27.08	36.49	34.82	477.01
	1991-2020	33.61	25.88	33.01	40.15	49.65	62.18	55.21	34.00	44.91	51.28	37.68	41.32	508.87
	2021-2050	20.23	19.32	30.45	32.11	42.74	58.66	34.67	23.93	24.06	28.22	36.71	21.60	372.71
UR (%)	1961-1990	86.43	85.07	79.28	72.40	70.53	69.69	67.82	68.41	72.43	76.91	84.95	88.00	76.83
	1991-2020	85.38	80.23	71.38	65.98	65.04	64.98	62.60	62.14	67.77	76.75	83.61	86.05	72.66
	2021-2050	83.34	77.76	71.52	65.60	67.29	61.13	51.23	46.65	54.70	67.44	78.68	82.44	67.32
v (m/s)	1961-1990	5.20	5.29	5.06	5.08	4.52	4.34	4.28	3.97	3.82	4.10	4.50	4.88	4.59
	1991-2020	3.23	3.37	3.54	3.23	2.99	2.79	2.66	2.49	2.68	2.71	2.90	3.16	2.98
	2021-2050	3.87	4.07	4.24	4.07	3.71	3.56	3.56	3.59	3.57	3.66	3.68	3.85	3.78
P (hPa)	1961-1990	1011.54	1010.21	1009.30	1005.50	1006.19	1005.29	1005.70	1006.78	1009.62	1012.54	1010.98	1010.40	1008.67
	1991-2020	1011.73	1010.32	1008.36	1006.27	1005.96	1005.30	1004.81	1006.40	1008.41	1011.32	1011.59	1012.09	1008.55
	2021-2050	1016.81	1016.02	1013.89	1011.51	1010.55	1009.95	1010.94	1012.36	1014.02	1017.30	1016.45	1016.57	1013.86
Sunshine (hours)	1961-1990	76.94	87.16	141.87	193.64	254.89	286.81	306.22	296.90	233.62	187.06	85.95	64.60	2215.65
	1991-2020	81.00	113.25	161.14	203.43	254.72	273.78	298.75	281.70	218.86	156.39	86.09	72.67	2201.78
	2021-2050	80.88	121.04	157.75	205.50	253.40	280.46	300.05	283.91	214.60	154.61	88.92	74.34	2215.46
Cloud cover (tenths)	1961-1990	7.10	7.25	6.87	6.29	5.86	5.23	4.62	4.18	4.51	4.96	7.03	7.48	5.95
	1991-2020	7.39	6.91	6.57	6.08	5.56	5.03	4.25	3.84	4.80	5.72	7.09	7.34	5.88
	2021-2050	7.32	6.58	6.55	6.04	5.66	4.83	4.06	3.66	5.01	6.08	7.19	7.09	5.84
Snow depth (cm)	1961-1990	3.59	2.57	0.83	0.00						0.00	0.57	1.63	9.19
	1991-2020	5.44	3.58	0.88	0.03						0.00	0.31	2.00	12.18
	2021-2050	6.27	3.48	1.52	0.01						0.00	0.41	2.49	14.18

Harsova		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-1.75	0.24	4.61	10.97	16.61	20.38	22.11	21.42	17.39	11.42	5.98	0.92	10.86
	1991-2020	-0.70	1.31	5.80	11.45	17.24	21.66	23.74	23.25	18.01	12.10	6.50	1.03	11.28
	2021-2050	0.13	1.71	6.00	11.50	16.76	20.47	23.79	23.55	18.06	11.69	5.80	0.91	11.70
T max (°C)	1961-1990	1.97	4.28	10.12	17.60	23.09	26.79	28.63	28.27	24.54	18.09	10.66	4.46	16.54
	1991-2020	3.16	6.11	11.71	18.02	23.93	28.17	30.47	30.50	25.09	18.35	11.15	4.81	17.62
	2021-2050	3.62	6.33	11.53	17.86	23.15	26.84	30.41	30.39	25.04	17.79	10.41	4.27	17.30
T min (°C)	1961-1990	-4.88	-2.87	0.44	5.50	10.48	13.94	15.50	14.88	11.36	6.33	2.15	-2.02	5.90
	1991-2020	-3.85	-2.33	1.27	5.85	11.00	15.16	16.97	16.47	12.18	7.42	2.88	-2.04	6.75
	2021-2050	-2.65	-2.05	2.05	6.30	11.08	14.90	17.71	17.39	12.67	7.19	2.36	-1.70	7.10
Precip (mm)	1961-1990	34.18	31.88	30.45	33.48	58.45	59.56	50.23	50.18	40.46	27.40	38.36	38.53	493.15
	1991-2020	28.44	21.85	33.13	39.00	48.57	61.56	68.12	35.29	45.18	41.65	42.03	38.78	503.60
	2021-2050	19.64	17.52	26.02	27.81	37.32	50.81	28.27	16.54	22.17	27.45	33.37	21.10	328.02
UR (%)	1961-1990	89.43	87.49	81.66	74.55	72.63	71.75	71.16	72.08	75.29	80.00	86.38	90.43	79.40
	1991-2020	89.35	84.88	78.13	73.57	73.12	71.44	68.61	68.26	72.89	80.88	87.05	90.72	78.24
	2021-2050	83.40	78.17	71.89	66.65	67.56	61.45	51.22	48.60	56.88	68.28	79.17	82.78	67.99
v (m/s)	1961-1990	3.95	4.41	4.17	4.08	3.49	3.10	2.93	2.78	2.80	3.09	3.38	3.53	3.48
	1991-2020	3.25	3.37	3.59	3.23	2.88	2.59	2.44	2.44	2.67	2.72	2.93	3.21	2.95
	2021-2050	3.71	3.98	4.14	3.99	3.64	3.42	3.42	3.44	3.42	3.50	3.59	3.66	3.66
P (hPa)	1961-1990	1015.81	1014.36	1013.34	1009.50	1010.09	1009.20	1009.42	1010.48	1013.49	1016.38	1015.02	1014.55	1012.64
	1991-2020	1015.69	1014.28	1012.33	1010.44	1010.15	1009.53	1008.88	1010.28	1012.28	1015.09	1015.68	1016.20	1012.57
	2021-2050	1017.60	1016.63	1014.49	1012.17	1011.11	1010.59	1011.55	1012.87	1014.57	1017.69	1017.07	1017.43	1014.48
Sunshine (hours)	1961-1990	74.57	86.07	141.37	187.81	248.51	275.64	300.30	293.85	235.78	189.03	90.45	62.42	2185.80
	1991-2020	81.31	115.59	167.73	218.01	277.85	297.27	333.80	321.53	246.29	169.22	96.41	78.21	2403.22
	2021-2050	81.49	122.76	163.90	221.90	276.54	306.50	337.39	326.85	243.90	167.30	98.89	79.10	2426.52
Cloud cover (tenths)	1961-1990	6.79	6.94	6.55	5.88	5.30	4.66	3.82	3.42	3.92	4.44	6.33	7.03	5.42
	1991-2020	6.88	6.26	6.07	5.53	5.13	4.47	3.55	3.16	4.29	5.19	6.49	6.78	5.32
	2021-2050	6.92	5.83	6.04	5.47	5.27	4.02	3.21	2.93	4.33	5.40	6.44	6.44	5.19
Snow depth (cm)	1961-1990	2.43	1.86	0.38	0.00						0.00	0.53	0.63	5.83
	1991-2020	2.04	1.55	0.34	0.00						0.00	0.07	0.48	4.46
	2021-2050	2.14	2.37	0.24	0.00						0.00	0.09	0.55	5.30

lezer	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-7.27	-6.89	-4.36	0.23	5.16	7.95	9.53	6.34	2.60	-1.94	-5.62	1.27
	1991-2020	-6.31	-6.05	-4.17	0.95	5.95	9.63	11.31	11.53	6.82	3.14	-0.60	-4.90
	2021-2050	-4.69	-4.36	-1.76	3.06	8.54	10.79	13.64	13.11	9.23	4.36	-1.03	-3.72
T max (°C)	1961-1990	-4.08	-3.49	-0.52	3.85	8.86	11.54	13.07	13.33	10.02	6.38	1.21	-2.53
	1991-2020	-3.50	-3.05	-0.72	4.27	9.53	12.94	14.61	14.98	10.22	6.53	2.49	-2.07
	2021-2050	-1.93	-1.28	1.86	7.61	13.14	14.81	17.92	17.56	13.74	8.72	2.43	-1.03
T min (°C)	1961-1990	-10.68	-10.29	-7.82	-2.83	1.93	4.59	6.18	6.07	3.24	-0.59	-5.00	-8.81
	1991-2020	-9.41	-9.24	-7.31	-1.96	2.71	6.26	7.90	8.18	3.89	0.09	-3.66	-7.84
	2021-2050	-7.52	-7.57	-4.43	-0.18	4.62	7.83	10.38	9.83	5.68	1.24	-3.38	-6.27
Precip (mm)	1961-1990	83.99	73.87	86.40	118.22	140.07	193.76	171.03	142.05	99.65	90.69	109.04	97.11
	1991-2020	74.50	80.60	103.81	102.38	166.32	166.75	165.08	124.66	126.10	119.73	102.28	96.21
	2021-2050	60.88	43.49	84.07	81.75	88.82	131.25	111.02	88.05	58.99	58.99	80.78	65.00
UR (%)	1961-1990	75.42	78.15	78.29	78.12	78.58	81.64	81.05	79.93	78.81	74.06	79.43	79.39
	1991-2020	76.59	77.89	79.56	76.66	77.15	79.13	79.30	77.81	80.19	76.21	75.02	76.45
	2021-2050	87.37	84.18	82.12	79.99	81.82	80.47	73.32	67.07	74.01	81.23	84.35	86.62
v (m/s)	1961-1990	4.94	4.74	4.51	3.87	3.23	2.87	2.63	3.12	3.46	4.81	4.85	3.83
	1991-2020	3.47	3.55	3.51	3.06	2.75	2.45	2.34	2.25	2.46	2.72	3.17	3.14
	2021-2050	3.23	3.50	3.56	3.33	3.03	2.96	2.82	2.82	2.78	2.87	3.05	3.18
P (hPa)	1961-1990	814.12	813.35	814.59	815.26	819.36	820.73	822.44	822.92	822.97	822.10	817.36	814.51
	1991-2020	815.50	814.49	814.92	816.69	819.91	821.98	822.88	824.10	822.53	821.55	818.51	816.49
	2021-2050	881.47	880.97	880.62	880.85	882.96	884.69	887.15	888.60	887.23	887.03	883.57	881.72
Sunshine (hours)	1961-1990	75.28	86.76	116.12	127.85	157.50	158.91	181.24	188.98	146.42	141.71	79.76	59.70
	1991-2020	73.39	83.13	117.70	145.70	176.12	183.73	199.56	209.81	142.16	132.35	93.89	62.72
	2021-2050	71.47	85.02	123.48	144.62	186.61	189.55	194.97	206.71	131.95	114.25	94.04	60.34
Cloud cover (tenths)	1961-1990	6.11	6.38	6.63	6.99	6.84	6.97	6.57	5.87	5.83	5.33	6.67	6.63
	1991-2020	6.65	6.91	6.92	6.58	6.64	6.53	6.17	5.33	6.11	5.99	6.35	6.70
	2021-2050	6.61	6.92	6.57	7.00	6.47	6.39	6.45	5.52	6.87	5.58	6.52	6.68
Snow depth (cm)	1961-1990	22.24	26.78	32.23	21.41						1.42	5.70	14.71
	1991-2020	21.48	28.68	39.27	28.07						1.69	5.41	13.55
	2021-2050	20.38	27.41	37.96	28.24						1.02	3.85	14.79

Joseni	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-8.07	-5.48	-0.42	6.20	11.49	14.46	15.86	15.11	11.41	5.58	0.27	-4.87
	1991-2020	-5.83	-4.10	0.77	6.79	12.10	15.62	17.05	16.58	11.69	6.43	0.80	-4.54
	2021-2050	-5.10	-4.55	2.17	7.05	12.31	15.17	17.62	17.21	12.11	6.47	0.94	-3.49
T max (°C)	1961-1990	-3.43	-0.20	5.77	12.77	18.15	21.01	22.69	22.82	19.33	13.36	4.89	-1.03
	1991-2020	-1.51	1.14	6.94	13.75	19.11	22.52	24.42	24.71	19.49	13.87	5.85	-0.71
	2021-2050	-0.37	0.92	7.65	14.07	18.90	21.68	24.51	24.71	19.41	13.18	5.85	0.62
T min (°C)	1961-1990	-12.89	-10.23	-5.29	0.82	5.39	8.53	9.70	8.59	5.19	0.17	-3.42	-8.86
	1991-2020	-9.85	-8.46	-3.94	0.78	5.38	9.03	10.23	9.53	5.47	1.32	-2.92	-8.16
	2021-2050	-8.89	-8.94	-1.82	1.83	5.57	8.77	10.91	10.24	5.70	1.21	-2.45	-6.60
Precip (mm)	1961-1990	21.97	18.51	22.08	40.71	69.95	81.16	80.17	66.42	40.27	30.88	24.81	23.28
	1991-2020	16.69	19.31	27.81	39.41	65.16	95.76	82.04	66.99	51.12	39.53	25.05	28.51
	2021-2050	21.71	17.77	31.28	37.87	50.17	82.22	73.20	57.10	32.80	30.04	28.78	23.60
UR (%)	1961-1990	90.59	87.99	83.82	79.78	78.48	80.44	81.27	81.39	82.22	85.64	90.18	91.71
	1991-2020	90.37	87.32	81.85	78.51	78.01	80.63	80.76	80.92	81.93	85.54	90.16	90.98
	2021-2050	86.56	84.38	82.80	81.72	81.78	78.34	69.30	63.79	73.33	80.96	84.98	86.21
v (m/s)	1961-1990	1.04	1.18	1.46	1.80	1.57	1.49	1.33	1.20	1.23	1.17	1.25	1.08
	1991-2020	1.86	1.48	1.94	1.93	1.86	1.65	1.84	1.35	1.52	1.39	1.33	1.26
	2021-2050	2.80	2.99	3.11	3.01	2.83	2.67	2.43	2.47	2.48	2.58	2.70	2.86
P (hPa)	1961-1990	929.16	927.72	927.65	925.92	928.21	928.43	929.47	930.33	931.98	932.81	930.10	928.64
	1991-2020	930.11	928.69	927.77	927.20	928.57	929.24	929.54	930.89	931.22	932.23	930.95	930.74
	2021-2050	920.65	920.01	919.30	918.74	920.01	921.20	923.34	924.78	924.70	924.88	923.06	920.72
Sunshine (hours)	1961-1990	66.07	87.15	148.03	165.05	192.85	211.29	228.95	228.20	180.80	148.60	70.50	47.08
	1991-2020	74.15	104.81	152.08	175.38	215.25	227.68	243.39	239.17	172.13	135.06	76.53	52.79
	2021-2050	74.27	106.87	155.30	178.01	216.76	232.71	244.87	242.54	169.51	136.81	78.28	52.56
Cloud cover (tenths)	1961-1990	6.83	6.73	6.23	6.44	6.23	6.17	5.68	5.31	5.45	5.35	7.07	7.51
	1991-2020	7.59	7.14	6.72	6.59	6.48	6.33	5.95	5.38	6.14	6.25	7.29	7.88
	2021-2050	7.61	7.02	6.43	6.75	6.52	6.10	6.02	5.45	6.15	6.36	7.33	7.83
Snow depth (cm)	1961-1990	11.80	12.82	6.24	0.33						0.04	0.98	6.13
	1991-2020	9.63	10.28	4.67	0.28						0.03	1.38	6.21
	2021-2050	8.82	8.47	4.07	0.32						0.04	1.04	7.01

Lacauti		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-7.93	-7.61	-4.59	0.15	5.12	8.19	9.85	9.80	6.71	2.56	-2.03	-5.89	1.19
	1991-2020	-7.28	-6.98	-4.46	0.69	5.86	9.69	11.53	11.66	7.02	3.07	-0.91	-5.65	2.02
	2021-2050	-5.31	-5.26	-2.54	2.27	7.94	10.80	13.57	13.12	9.25	3.94	-1.10	-4.13	3.55
T max (°C)	1961-1990	-4.92	-4.48	-1.15	3.87	9.29	12.50	14.10	14.19	10.81	6.34	0.99	-3.07	4.87
	1991-2020	-4.54	-3.98	-1.19	4.33	9.91	13.88	15.76	15.82	10.75	6.49	2.00	-2.93	5.52
	2021-2050	-2.03	-1.74	1.18	6.63	12.70	14.94	18.30	18.20	13.94	8.08	2.14	-1.03	7.61
T min (°C)	1961-1990	-10.72	-10.23	-7.23	-2.41	2.44	5.43	7.05	7.06	4.10	-0.12	-4.61	-8.54	-1.48
	1991-2020	-9.68	-9.52	-6.88	-1.79	3.22	6.91	8.76	9.05	4.62	0.62	-3.34	-8.08	-0.51
	2021-2050	-7.72	-8.23	-4.71	-0.53	4.38	7.87	10.36	9.77	6.05	1.20	-3.31	-6.60	0.70
Precip (mm)	1961-1990	27.00	28.31	25.33	37.84	71.95	89.12	88.71	70.91	47.69	26.63	26.79	28.86	569.14
	1991-2020	27.20	29.77	36.86	43.74	67.33	92.62	82.17	79.98	48.55	36.60	24.53	30.79	600.14
	2021-2050	33.34	31.48	51.45	55.30	66.29	122.42	87.01	68.36	42.69	38.13	44.31	33.00	679.79
UR (%)	1961-1990	84.58	87.84	85.31	84.67	84.88	86.41	86.80	85.46	85.50	81.43	85.71	86.47	85.42
	1991-2020	86.99	87.56	87.28	82.82	81.94	83.70	82.87	81.71	85.48	82.92	82.03	85.59	84.24
	2021-2050	87.90	86.96	85.66	81.38	83.81	81.02	75.41	71.26	75.74	82.82	86.46	88.07	82.21
v (m/s)	1961-1990	10.74	10.06	9.17	8.19	7.22	6.99	7.15	6.25	7.46	8.06	10.02	10.46	8.48
	1991-2020	7.34	7.15	6.93	5.71	5.31	4.81	4.91	4.19	5.60	5.89	6.39	6.95	5.93
	2021-2050	4.04	4.18	4.04	3.75	3.37	3.11	2.83	2.79	3.00	3.33	3.77	3.95	3.51
P (hPa)	1961-1990	814.23	813.45	814.88	815.48	819.45	820.78	822.26	823.00	823.16	822.33	817.84	814.79	818.47
	1991-2020	814.84	813.89	814.33	816.05	819.23	821.25	821.97	823.28	821.76	821.01	818.26	816.09	818.50
	2021-2050	868.48	867.66	867.43	867.85	869.69	871.67	874.31	875.72	874.50	874.07	870.63	868.73	870.89
Sunshine (hours)	1961-1990	91.16	83.95	116.46	131.20	169.21	174.04	189.06	199.32	167.42	158.66	93.56	80.88	1654.93
	1991-2020	80.71	83.26	105.18	139.90	177.69	187.77	213.19	217.31	151.65	136.53	105.82	82.43	1681.44
	2021-2050	81.93	85.31	105.15	143.16	178.33	196.96	211.02	217.39	142.98	133.27	105.39	78.40	1679.29
Cloud cover (tenths)	1961-1990	6.85	7.22	7.02	7.21	6.97	6.96	6.47	5.87	6.03	5.64	6.82	7.06	6.68
	1991-2020	7.15	7.32	7.33	6.97	6.75	6.64	6.06	5.37	6.27	6.17	6.29	6.94	6.60
	2021-2050	6.88	7.36	7.32	7.06	6.73	6.30	5.99	5.24	6.84	6.52	6.62	6.97	6.65
Snow depth (cm)	1961-1990	35.99	47.84	43.76	23.67						1.28	6.35	23.18	182.02
	1991-2020	59.05	90.02	103.54	68.87						2.62	8.59	30.10	361.41
	2021-2050	57.49	83.64	100.06	76.04						3.87	8.13	36.06	365.29

Mangalia		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	0.87	1.84	4.52	9.49	14.92	19.40	21.53	21.40	18.04	13.00	8.25	3.63	11.41
	1991-2020	1.66	2.80	5.88	10.17	15.88	20.83	23.21	23.40	18.88	13.73	8.57	3.53	12.38
	2021-2050	2.47	3.18	6.49	10.34	15.54	20.30	23.55	23.69	19.26	13.64	8.08	3.41	12.50
T max (°C)	1961-1990	4.40	5.35	8.07	13.22	18.48	23.22	25.36	25.32	22.16	17.10	12.16	7.08	15.16
	1991-2020	5.07	6.49	9.71	13.78	19.51	24.44	26.83	26.93	22.66	17.38	12.01	6.95	15.98
	2021-2050	5.59	6.54	9.81	13.87	19.25	24.20	27.42	27.71	22.88	17.45	11.82	6.71	16.10
T min (°C)	1961-1990	-1.80	-0.56	2.09	6.77	11.73	15.62	17.61	17.42	14.29	9.63	5.23	1.05	8.26
	1991-2020	-1.07	0.07	3.07	7.22	12.46	16.89	18.95	19.11	15.03	10.60	5.80	0.79	9.08
	2021-2050	-0.23	0.21	3.71	7.41	12.02	16.30	19.39	19.55	15.14	10.07	4.96	0.77	9.11
Precip (mm)	1961-1990	30.40	27.63	27.26	32.36	33.12	37.19	33.11	34.93	31.97	32.98	41.50	36.00	398.45
	1991-2020	37.91	24.48	32.23	29.39	42.73	42.98	40.97	31.56	58.55	48.24	37.39	37.88	464.31
	2021-2050	21.33	20.25	28.00	26.66	27.41	38.22	19.34	16.45	22.07	36.16	48.47	24.82	329.19
UR (%)	1961-1990	84.88	84.37	84.20	83.42	82.44	79.80	78.45	78.20	79.91	82.22	84.96	85.80	82.39
	1991-2020	84.95	82.85	80.34	81.84	81.24	78.81	76.48	75.13	77.64	82.38	84.72	85.48	80.99
	2021-2050	80.58	77.27	74.74	74.03	75.85	69.48	62.90	61.39	64.56	70.43	78.15	79.99	72.45
v (m/s)	1961-1990	4.51	4.47	4.27	3.80	3.40	3.37	3.44	3.60	3.99	4.37	4.22	4.59	4.00
	1991-2020	3.32	3.43	3.51	3.21	3.09	2.94	2.92	3.18	3.56	3.69	3.38	3.39	3.30
	2021-2050	5.38	5.37	5.17	4.55	4.10	3.98	4.06	4.19	4.28	4.69	5.08	5.40	4.69
P (hPa)	1961-1990	1018.65	1017.20	1016.37	1012.80	1013.30	1012.33	1012.46	1013.39	1016.35	1019.25	1018.06	1017.57	1015.64
	1991-2020	1019.21	1017.92	1015.94	1013.86	1013.41	1012.54	1011.83	1013.17	1015.38	1018.35	1018.98	1019.58	1015.85
	2021-2050	1018.07	1017.01	1015.14	1013.11	1011.98	1011.51	1012.37	1013.54	1015.23	1017.97	1017.47	1017.95	1015.11
Sunshine (hours)	1961-1990	76.26	83.58	129.36	189.50	267.49	292.70	326.10	312.41	239.99	186.01	99.02	71.15	2273.58
	1991-2020	88.18	113.87	141.61	208.51	284.80	312.47	347.96	321.66	233.89	162.83	103.24	87.46	2406.48
	2021-2050	90.86	118.59	139.08	214.99	288.83	320.81	349.66	326.49	232.80	160.09	109.18	89.92	2441.30
Cloud cover (tenths)	1961-1990	6.63	7.00	6.43	5.76	4.79	3.76	2.84	2.63	3.43	4.74	6.04	6.79	5.07
	1991-2020	6.41	6.06	5.65	5.07	4.51	3.62	2.65	2.41	3.59	4.95	6.25	6.35	4.79
	2021-2050	6.30	5.52	5.67	5.01	4.38	3.25	2.25	2.01	3.38	5.17	5.94	6.02	4.58
Snow depth (cm)	1961-1990	0.87	0.96	0.17	0.00						0.00	0.07	0.17	2.23
	1991-2020	1.37	0.40	0.17	0.00						0.00	0.00	0.41	2.33
	2021-2050	0.00	0.00	0.00	0.00						0.00	0.00	0.00	0.00

Miercurea Ciuc		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-8.17	-5.65	-0.29	6.34	11.58	14.64	16.05	15.12	11.28	5.58	0.29	-4.84	5.16
	1991-2020	-6.14	-4.50	0.70	6.96	12.29	16.01	17.50	16.77	11.70	6.33	0.66	-4.69	6.19
	2021-2050	-5.31	-4.66	2.38	7.56	12.74	15.64	18.12	17.77	12.53	6.74	1.07	-3.54	6.75
T max (°C)	1961-1990	-2.32	0.73	7.09	13.91	19.09	21.84	23.44	23.45	20.12	14.35	6.02	-0.12	12.30
	1991-2020	-1.13	1.82	7.75	14.56	19.88	23.40	25.22	25.42	20.23	14.59	6.60	-0.35	13.17
	2021-2050	-0.23	1.05	8.00	14.51	19.25	22.11	24.96	25.12	19.80	13.76	6.33	0.66	12.94
T min (°C)	1961-1990	-13.54	-11.04	-5.97	-0.11	4.41	7.55	8.83	7.61	4.04	-0.79	-4.18	-9.26	-1.04
	1991-2020	-10.77	-9.58	-4.76	0.07	4.54	8.32	9.71	8.81	4.63	0.41	-3.78	-8.79	-0.10
	2021-2050	-9.26	-9.21	-5.58	2.07	6.19	9.19	11.42	10.78	6.14	1.41	-2.34	-6.88	1.19
Precip (mm)	1961-1990	28.79	26.20	26.91	42.98	70.65	90.65	83.11	65.67	39.75	32.93	28.44	29.37	565.45
	1991-2020	22.45	21.91	32.21	44.66	70.67	97.73	86.43	67.31	46.75	42.98	27.03	35.47	595.61
	2021-2050	22.35	18.36	35.15	44.48	58.65	80.01	73.59	57.73	40.79	35.73	31.90	25.30	524.04
UR (%)	1961-1990	87.25	84.89	79.90	75.31	74.88	75.92	76.43	77.82	78.56	81.26	86.58	88.52	80.61
	1991-2020	87.71	84.15	77.84	73.88	73.76	75.87	75.95	77.91	80.30	83.60	87.74	89.43	80.68
	2021-2050	86.83	84.95	82.31	78.72	80.59	77.33	68.12	63.24	70.81	79.37	84.73	86.15	78.51
v (m/s)	1961-1990	1.00	1.17	1.35	1.76	1.52	1.60	1.54	1.24	1.22	1.11	1.16	1.05	1.31
	1991-2020	1.27	1.39	1.81	1.86	1.82	1.68	1.64	1.42	1.48	1.30	1.23	1.13	1.50
	2021-2050	2.81	3.14	3.26	3.11	2.93	2.76	2.56	2.60	2.56	2.63	2.75	2.83	2.83
P (hPa)	1961-1990	938.79	937.38	937.14	935.24	937.37	937.50	938.46	939.28	940.95	942.27	939.59	938.29	938.52
	1991-2020	940.32	938.88	937.76	936.98	938.13	938.69	938.91	940.27	940.80	942.02	940.96	940.95	939.56
	2021-2050	918.63	915.99	915.16	914.72	916.03	917.26	919.44	920.83	920.29	920.90	918.05	916.70	913.62
Sunshine (hours)	1961-1990	69.24	86.55	148.02	163.33	197.70	211.18	233.11	231.99	188.89	153.08	72.62	49.78	1805.50
	1991-2020	65.11	95.35	148.11	178.73	219.09	232.65	257.71	253.72	186.81	144.11	78.92	52.27	1912.60
	2021-2050	64.73	98.15	150.30	182.81	218.51	237.99	259.31	258.81	182.56	143.55	81.22	51.75	1929.69
Cloud cover (tenths)	1961-1990	6.87	6.89	6.24	6.54	6.28	6.04	5.51	5.13	5.31	5.34	6.97	7.56	6.22
	1991-2020	7.34	6.88	6.46	6.30	6.16	5.94	5.29	4.80	5.70	6.04	7.05	7.67	6.30
	2021-2050	7.32	6.75	6.19	6.31	6.30	5.64	5.26	4.74	6.22	6.22	7.09	7.65	6.31
Snow depth (cm)	1961-1990	12.60	14.13	6.23	0.30						0.03	0.87	5.37	39.52
	1991-2020	10.29	12.19	5.06	0.24						0.00	1.00	5.55	34.12
	2021-2050	9.64	10.76	4.82	0.24						0.00	0.91	7.33	33.70

Moldova Veche		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	0.52	2.52	6.58	11.65	16.13	18.82	20.36	20.20	16.84	11.98	6.88	2.41	11.24
	1991-2020	1.33	2.91	7.18	12.45	16.97	20.52	22.38	22.33	17.50	12.46	7.65	2.53	12.19
	2021-2050	1.21	2.33	7.15	12.25	17.06	19.84	23.12	23.03	17.98	12.31	6.32	2.38	12.08
T max (°C)	1961-1990	4.20	6.74	11.88	17.57	22.16	25.02	27.02	27.00	23.47	17.89	11.32	5.86	16.68
	1991-2020	5.10	7.67	12.99	18.61	23.23	26.89	29.25	29.46	23.94	18.11	11.81	6.03	17.76
	2021-2050	4.53	6.80	12.72	18.56	23.22	26.25	30.08	30.37	24.63	17.89	10.41	5.77	17.60
T min (°C)	1961-1990	-1.64	-0.01	2.89	6.81	10.54	12.77	13.71	13.83	11.45	7.57	3.79	0.22	6.83
	1991-2020	-1.03	-0.04	3.02	7.19	11.08	13.99	15.31	15.58	12.15	8.21	4.63	0.21	7.52
	2021-2050	-1.29	-0.84	3.09	7.08	11.53	14.36	16.95	16.75	12.64	7.83	3.23	-0.12	7.60
Precip (mm)	1961-1990	43.65	40.01	40.10	53.31	73.54	82.72	66.52	53.07	47.14	35.64	46.39	53.38	635.47
	1991-2020	43.05	38.96	40.25	55.55	74.56	75.17	63.39	56.53	59.56	50.78	45.27	49.46	652.54
	2021-2050	45.94	36.25	44.68	44.66	58.55	71.80	44.06	35.18	37.43	39.27	48.58	47.16	553.57
UR (%)	1961-1990	83.03	80.23	73.97	71.08	71.33	73.75	72.06	71.66	73.85	75.71	80.48	84.05	75.93
	1991-2020	82.16	77.27	69.17	65.99	69.21	69.12	65.72	66.03	70.00	74.54	76.98	82.76	72.41
	2021-2050	84.44	80.67	75.16	70.01	74.99	67.45	57.59	53.38	61.28	73.06	82.63	84.39	72.11
v (m/s)	1961-1990	3.41	4.05	4.33	3.49	2.93	2.25	2.07	2.40	2.61	3.43	3.70	2.98	3.14
	1991-2020	2.29	2.60	2.81	2.77	2.32	1.97	1.92	2.00	2.35	2.77	3.14	2.45	2.45
	2021-2050	3.45	3.62	3.74	3.56	3.06	2.94	2.95	3.00	3.10	3.40	3.38	3.39	3.30
P (hPa)	1961-1990	1010.96	1008.75	1007.47	1004.04	1005.12	1005.14	1005.78	1006.03	1008.71	1010.85	1009.79	1010.01	1007.72
	1991-2020	1011.26	1009.37	1007.15	1004.51	1004.77	1004.87	1004.54	1005.32	1007.08	1009.50	1009.49	1011.18	1007.42
	2021-2050	998.83	991.53	981.45	989.65	989.55	989.83	991.11	993.15	993.05	994.78	994.08	994.75	992.36
Sunshine (hours)	1961-1990	65.22	81.78	143.36	173.75	231.12	245.47	288.62	270.78	207.34	166.97	88.17	53.36	2025.94
	1991-2020	72.32	100.55	162.43	206.41	250.02	282.71	316.73	299.50	208.31	166.43	100.26	61.04	2225.71
	2021-2050	71.31	101.34	167.23	204.03	252.45	287.08	322.36	302.96	202.82	167.15	105.15	60.71	2244.59
Cloud cover (tenths)	1961-1990	6.97	6.70	6.03	5.91	5.48	5.13	4.01	3.72	4.20	4.59	6.36	7.30	5.53
	1991-2020	6.67	6.27	5.66	5.50	5.27	4.55	3.73	3.41	4.51	4.94	6.02	6.80	5.28
	2021-2050	6.79	6.13	5.30	5.45	5.27	4.59	3.46	3.28	4.64	4.86	5.85	6.87	5.24
Snow depth (cm)	1961-1990	3.81	2.28	0.27	0.00						0.00	0.16	1.40	7.91
	1991-2020	1.51	2.42	0.14	0.00						0.00	0.07	1.03	5.14
	2021-2050	1.40	1.65	0.18	0.00						0.00	0.06	0.84	5.77

Parang		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-5.50	-5.12	-2.37	2.40	7.34	10.24	12.09	11.98	8.89	4.73	0.27	-3.56	3.45
	1991-2020	-4.45	-4.22	-1.82	3.19	8.14	11.92	13.76	14.01	9.21	5.18	1.16	-3.01	4.42
	2021-2050	-1.68	-1.38	1.83	6.26	11.36	14.24	17.17	17.00	12.18	7.29	2.23	-0.54	7.16
T max (°C)	1961-1990	-1.35	-0.90	2.11	7.00	11.98	14.80	16.88	16.85	13.82	9.50	4.34	0.23	7.94
	1991-2020	-0.58	-0.09	2.50	7.76	12.66	16.43	18.44	18.69	13.61	9.37	4.95	0.59	8.69
	2021-2050	1.79	2.52	6.33	11.73	17.45	19.71	23.04	23.02	18.13	12.55	6.32	2.99	12.13
T min (°C)	1961-1990	-8.58	-7.90	-5.10	-0.43	4.34	7.20	8.99	9.01	6.19	1.93	-2.51	-6.36	0.57
	1991-2020	-7.20	-7.01	-4.58	0.29	5.10	8.75	10.64	11.10	6.60	2.50	-1.51	-5.75	1.58
	2021-2050	-4.40	-4.39	-1.13	2.63	7.02	10.48	13.02	12.74	8.63	4.21	0.03	-3.30	3.79
Precip (mm)	1961-1990	60.30	53.14	56.17	85.16	135.94	163.52	135.44	104.86	83.80	72.48	62.91	61.05	1074.78
	1991-2020	52.58	47.49	63.40	85.29	128.39	148.52	137.43	102.70	93.66	75.27	59.80	56.09	1050.61
	2021-2050	50.88	39.48	64.74	70.91	88.51	128.77	82.21	72.55	45.08	50.48	63.41	48.27	785.30
UR (%)	1961-1990	81.25	84.82	82.14	79.40	79.41	80.68	78.43	77.85	79.05	77.12	80.23	82.85	80.27
	1991-2020	83.37	84.03	82.45	78.80	80.63	81.27	79.50	77.59	82.13	81.57	81.48	82.81	81.30
	2021-2050	87.47	85.89	85.13	82.72	85.48	80.05	72.14	66.57	75.28	83.36	86.21	87.28	81.47
v (m/s)	1961-1990	1.83	2.01	1.99	2.09	1.82	1.76	1.73	1.51	1.69	1.93	2.41	1.91	1.89
	1991-2020	1.52	1.70	1.71	1.68	1.57	1.56	1.55	1.37	1.49	1.57	1.70	1.52	1.58
	2021-2050	3.66	3.76	3.63	3.45	3.13	2.97	2.80	2.85	3.01	3.06	3.31	3.45	3.24
P (hPa)	1961-1990	841.48	840.48	841.53	841.44	845.00	846.35	848.20	848.31	848.91	848.36	844.42	841.79	844.69
	1991-2020	842.48	841.50	841.59	842.41	845.09	846.98	847.67	848.83	847.80	847.48	844.93	843.32	845.01
	2021-2050	859.13	858.21	857.99	858.42	860.37	862.48	865.36	866.68	865.23	864.46	861.15	859.59	861.59
Sunshine (hours)	1961-1990	78.01	82.20	119.08	136.98	177.69	189.67	224.43	214.68	172.64	150.13	89.66	67.44	1702.59
	1991-2020	86.10	97.16	115.68	141.40	182.31	206.76	237.70	229.11	163.00	138.14	101.62	79.16	1778.13
	2021-2050	84.58	98.58	120.03	145.87	187.42	213.23	242.02	232.99	156.92	141.86	102.76	76.99	1803.25
Cloud cover (tenths)	1961-1990	6.38	6.88	7.02	7.06	6.85	6.47	5.54	5.03	5.44	5.34	6.49	6.75	6.27
	1991-2020	6.21	6.42	6.44	6.38	6.37	5.80	4.96	4.53	5.52	5.66	6.27	6.37	5.89
	2021-2050	6.28	6.47	5.90	6.57	6.44	5.46	4.80	4.37	6.08	5.51	6.48	6.42	5.90
Snow depth (cm)	1961-1990	42.27	56.08	49.76	13.90						0.61	5.49	21.19	189.29
	1991-2020	34.34	50.73	44.38	12.03						0.79	5.52	17.31	164.31
	2021-2050	30.09	44.79	40.38	11.95						0.27	2.30	17.09	146.87

Pitesti		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-1.65	-0.05	4.27	10.26	15.29	18.63	20.41	19.68	16.01	10.30	5.07	0.56	9.90
	1991-2020	-0.28	1.34	5.53	11.00	16.08	20.11	21.99	21.60	16.47	10.89	5.62	0.97	10.94
	2021-2050	-0.21	1.45	5.64	11.14	15.95	19.42	22.49	22.35	16.92	10.81	4.78	0.78	10.96
T max (°C)	1961-1990	3.11	4.75	9.94	16.61	21.85	25.34	27.37	27.04	23.46	17.28	10.44	5.06	16.02
	1991-2020	4.76	6.82	11.64	17.49	22.84	26.90	29.20	29.17	23.58	17.20	10.62	5.57	17.15
	2021-2050	4.09	6.92	11.18	17.35	22.16	25.81	29.29	29.45	24.07	17.07	9.46	4.85	16.81
T min (°C)	1961-1990	-5.16	-3.37	0.26	5.50	10.26	13.43	14.97	14.48	10.98	5.83	1.65	-2.56	5.52
	1991-2020	-3.70	-2.41	1.18	5.96	10.63	14.44	16.08	15.89	11.44	6.75	2.24	-2.08	6.37
	2021-2050	-3.30	-2.64	1.38	5.87	10.37	13.76	16.49	16.34	11.75	6.37	1.39	-2.15	6.30
Precip (mm)	1961-1990	39.48	41.56	39.18	56.94	82.50	97.61	85.18	59.37	47.92	40.70	53.53	52.87	696.84
	1991-2020	39.96	34.98	46.20	62.06	85.94	98.53	86.27	63.66	62.83	58.31	47.00	47.60	733.34
	2021-2050	29.77	26.75	42.63	49.22	62.41	83.16	57.03	40.24	33.78	33.30	44.23	30.32	532.63
UR (%)	1961-1990	82.58	82.69	76.79	70.93	71.16	69.84	68.74	70.18	72.06	76.56	81.75	84.10	75.61
	1991-2020	81.91	78.29	71.15	67.46	69.91	69.52	66.69	67.69	71.88	79.04	83.00	84.32	74.24
	2021-2050	83.30	78.69	75.56	72.54	73.71	67.50	57.95	52.93	60.04	71.39	81.14	82.51	71.44
v (m/s)	1961-1990	2.09	2.30	2.62	2.83	2.76	2.53	2.47	2.33	2.25	2.27	2.26	1.90	2.38
	1991-2020	1.77	2.02	2.34	2.43	2.23	2.16	2.18	2.10	2.08	1.94	1.85	1.74	2.07
	2021-2050	2.53	2.73	3.04	3.00	2.77	2.60	2.55	2.67	2.65	2.52	2.44	2.48	2.66
P (hPa)	1961-1990	982.32	980.95	980.36	977.21	978.61	978.28	978.90	979.73	982.16	984.33	982.39	981.53	980.56
	1991-2020	980.81	979.42	977.87	976.19	976.64	976.66	976.44	977.80	979.17	981.41	981.00	981.20	978.72
	2021-2050	977.07	976.12	974.47	973.91	973.98	973.13	974.64	975.86	976.60	978.72	977.32	977.09	975.55
Sunshine (hours)	1961-1990	94.90	95.44	148.52	185.76	235.33	261.20	287.78	276.47	225.88	179.35	106.89	86.64	2184.16
	1991-2020	107.21	128.13	165.64	200.11	253.23	282.45	313.56	289.12	207.21	161.82	106.60	87.18	2302.27
	2021-2050	108.95	137.16	165.70	204.25	252.25	288.11	320.67	298.41	205.96	161.25	113.91	88.57	2345.19
Cloud cover (tenths)	1961-1990	6.36	6.83	6.37	6.13	5.93	5.23	4.44	4.16	4.45	4.73	6.16	6.54	5.61
	1991-2020	5.94	5.97	5.94	5.96	5.73	5.16	4.32	4.02	4.84	5.37	6.31	6.27	5.49
	2021-2050	5.96	5.69	5.72	5.95	5.84	5.13	4.01	3.68	4.93	5.50	6.10	6.22	5.37
Snow depth (cm)	1961-1990	7.04	4.36	1.04	0.03						0.00	0.57	2.62	15.67
	1991-2020	4.46	4.02	1.26	0.03						0.00	0.79	2.00	12.48
	2021-2050	4.91	3.52	0.85	0.00						0.00	0.62	4.41	14.31

Ploiesti		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-2.53	-0.57	4.19	10.65	15.95	19.39	21.26	20.62	16.59	10.45	4.81	-0.01	10.07
	1991-2020	-1.30	0.63	5.40	11.40	16.96	20.95	22.89	22.66	17.19	11.10	5.31	0.07	11.13
	2021-2050	-0.24	1.44	5.90	11.55	16.58	19.76	22.87	22.82	17.14	10.94	5.06	0.68	11.21
T max (°C)	1961-1990	2.56	4.43	10.40	17.38	22.59	26.08	28.17	27.86	24.11	17.79	10.48	4.75	16.38
	1991-2020	4.05	6.66	11.98	18.08	23.73	27.62	29.89	30.05	24.51	17.88	10.78	5.04	17.52
	2021-2050	4.32	7.26	11.67	18.05	22.88	26.30	29.74	29.94	24.49	17.62	10.19	5.06	17.29
T min (°C)	1961-1990	-7.90	-5.48	-1.20	4.39	9.64	13.14	14.98	14.62	10.72	4.86	0.08	-4.65	4.43
	1991-2020	-6.10	-4.56	-0.33	4.93	10.35	14.48	16.23	16.11	11.28	6.02	0.85	-4.36	5.41
	2021-2050	-3.79	-2.95	-1.21	5.65	10.40	13.85	16.59	16.42	11.58	6.07	1.16	-2.65	6.13
Precip (mm)	1961-1990	37.25	37.25	34.63	48.72	76.07	87.75	77.30	61.32	44.21	34.18	47.03	44.42	630.10
	1991-2020	35.45	29.97	39.47	48.04	73.82	91.14	76.01	59.45	59.74	56.66	42.98	47.62	660.37
	2021-2050	25.14	24.07	33.87	42.03	54.01	80.94	54.92	40.91	35.44	33.99	37.63	26.74	489.70
UR (%)	1961-1990	86.61	85.60	78.43	72.34	72.18	71.70	70.00	70.99	74.42	78.84	85.28	88.60	77.92
	1991-2020	85.70	81.54	73.60	68.38	68.82	69.25	66.77	66.38	71.64	80.03	85.46	87.75	75.44
	2021-2050	83.37	77.19	73.67	70.97	70.73	65.90	55.17	48.59	56.53	69.21	80.08	82.20	69.47
v (m/s)	1961-1990	1.64	2.00	2.30	2.30	2.24	2.01	1.89	1.77	1.64	1.73	1.77	1.58	1.91
	1991-2020	1.82	2.07	2.43	2.39	2.20	2.07	1.99	1.91	1.91	1.75	1.77	1.69	2.00
	2021-2050	2.33	2.68	3.08	3.15	2.92	2.69	2.73	2.83	2.77	2.57	2.40	2.29	2.70
P (hPa)	1961-1990	998.10	996.69	995.85	992.41	993.40	992.80	993.29	994.22	996.82	999.41	997.76	997.16	995.66
	1991-2020	998.43	996.99	995.20	993.28	993.27	992.98	992.66	994.06	995.77	998.34	998.34	998.79	995.68
	2021-2050	999.70	998.42	997.06	995.57	994.89	994.94	994.28	992.57	992.60	991.15	989.79	989.65	987.81
Sunshine (hours)	1961-1990	80.94	85.55	138.72	176.17	227.28	244.92	267.92	261.52	206.58	176.59	95.65	71.79	2033.62
	1991-2020	84.92	104.13	145.16	178.01	224.65	242.11	268.87	259.35	186.14	144.00	92.95	71.54	2001.82
	2021-2050	86.33	112.06	143.32	182.27	221.96	246.85	275.24	267.84	185.81	142.19	97.26	72.69	2033.82
Cloud cover (tenths)	1961-1990	6.53	6.93	6.43	6.16	5.83	5.36	4.59	4.26	4.44	4.75	6.38	6.78	5.70
	1991-2020	6.32	4.30	5.96	5.80	5.52	5.12	4.30	3.91	4.69	5.26	6.35	6.45	5.48
	2021-2050	6.28	5.85	5.81	5.81	5.66	4.77	3.93	3.55	4.72	5.55	6.26	6.32	5.38
Snow depth (cm)	1961-1990	5.33	4.29	0.83	0.00						0.00	0.47	2.47	13.39
	1991-2020	4.08	3.72	0.91	0.00						0.00	0.55	2.28	11.45
	2021-2050	3.41	2.74	0.28	0.00						0.00	0.17	3.74	10.34

Ramnicu Valcea		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-1.81	0.41	5.06	11.08	15.99	19.27	21.07	20.34	16.50	10.62	5.27	0.46	10.36
	1991-2020	-0.44	1.59	6.19	11.75	16.67	20.55	22.41	22.08	16.93	11.38	5.89	0.93	11.93
	2021-2050	0.00	1.56	5.53	10.85	15.57	18.85	21.89	21.75	16.46	10.66	4.71	1.01	10.74
T max (°C)	1961-1990	3.24	5.56	11.21	17.61	22.42	25.60	27.72	27.36	23.88	17.81	10.80	5.10	16.53
	1991-2020	4.81	7.53	12.71	18.58	23.63	27.40	29.63	29.68	24.32	18.06	11.25	5.66	17.77
	2021-2050	3.92	6.74	11.07	17.14	21.84	25.10	28.66	28.82	23.44	16.70	9.34	4.78	16.48
T min (°C)	1961-1990	-5.14	-2.93	0.74	5.88	10.54	13.50	15.04	14.63	11.24	5.97	1.77	-2.53	5.73
	1991-2020	-3.96	-2.37	1.42	6.41	11.03	14.67	16.27	16.30	11.80	7.07	2.38	-2.25	6.56
	2021-2050	-2.89	-2.26	1.49	5.98	10.61	14.01	16.61	16.42	11.84	6.42	1.36	-1.75	6.49
Precip (mm)	1961-1990	36.81	40.35	36.68	55.84	91.57	81.48	90.07	66.87	49.61	47.49	52.62	48.42	697.79
	1991-2020	38.66	30.31	39.93	57.35	82.01	100.65	83.66	77.66	58.32	58.64	49.14	51.41	727.73
	2021-2050	33.02	25.64	46.93	51.99	63.27	97.20	54.88	37.64	31.77	39.62	44.98	32.00	558.95
UR (%)	1961-1990	83.01	80.96	73.07	68.19	69.39	68.90	66.64	69.15	72.49	77.75	81.40	84.81	74.65
	1991-2020	82.91	77.15	67.99	64.39	67.93	67.86	65.07	66.51	71.65	78.40	81.74	85.10	73.09
	2021-2050	83.74	78.96	75.46	70.64	72.62	66.27	58.08	53.73	58.79	71.94	81.55	82.34	71.09
v (m/s)	1961-1990	1.06	1.23	1.55	1.69	1.59	1.57	1.60	1.48	1.34	1.28	1.13	0.94	1.37
	1991-2020	1.25	1.47	1.75	1.85	1.77	1.69	1.67	1.65	1.63	1.44	1.30	1.22	1.56
	2021-2050	2.00	2.33	2.54	2.65	2.48	2.49	2.49	2.65	2.50	2.14	1.96	1.84	2.34
P (hPa)	1961-1990	990.53	989.04	988.27	984.97	986.36	985.98	986.55	987.39	989.88	992.18	990.37	989.71	988.44
	1991-2020	991.18	989.64	987.89	985.97	986.32	986.22	985.98	987.33	988.87	991.29	991.10	991.53	988.61
	2021-2050	976.05	975.09	973.44	971.96	971.90	972.28	973.84	975.03	975.73	972.78	976.29	976.09	974.63
Sunshine (hours)	1961-1990	76.36	85.71	138.73	176.05	220.27	243.69	276.20	257.46	206.83	167.95	90.94	66.98	2007.19
	1991-2020	90.11	111.33	157.35	185.94	233.72	259.98	289.07	274.15	201.81	156.03	96.36	72.69	2128.53
	2021-2050	91.20	119.02	160.24	189.45	233.74	264.58	295.03	282.69	200.24	158.00	104.20	73.81	2172.20
Cloud cover (tenths)	1961-1990	6.59	6.91	6.44	6.26	6.15	5.46	4.58	4.30	4.61	4.96	6.44	6.87	5.80
	1991-2020	6.34	6.13	6.05	6.08	5.89	5.24	4.42	4.15	5.05	5.61	6.60	6.72	5.69
	2021-2050	6.42	5.90	5.60	6.07	5.97	4.97	4.17	3.73	5.30	5.72	6.31	6.64	5.57
Snow depth (cm)	1961-1990	4.90	3.75	0.75	0.00						0.00	0.23	1.87	11.50
	1991-2020	2.92	2.58	0.65	0.00						0.00	0.38	1.31	7.78
	2021-2050	3.65	2.38	0.46	0.00						0.00	0.34	1.1	10.10

Roman		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-4.16	-2.27	2.36	9.26	14.90	18.02	19.33	18.72	14.85	9.26	3.70	-1.24	8.56
	1991-2020	-2.74	-1.02	3.74	10.23	15.84	19.49	21.17	20.55	15.46	9.68	4.03	-1.26	9.68
	2021-2050	-1.32	-0.28	4.66	10.55	15.76	18.69	21.49	21.28	15.96	9.83	4.14	-0.01	10.06
T max (°C)	1961-1990	-0.50	1.67	7.46	15.51	21.08	24.21	25.62	25.48	21.83	15.56	8.02	2.12	14.00
	1991-2020	0.84	3.30	9.40	16.55	22.33	25.63	27.57	27.34	22.08	15.60	8.19	2.11	15.08
	2021-2050	2.15	3.96	9.98	16.55	21.81	24.71	27.83	27.92	22.26	15.41	8.39	3.19	15.35
T min (°C)	1961-1990	-7.74	-5.70	-1.50	4.31	9.62	12.68	14.04	13.29	9.64	4.70	0.38	-4.42	4.11
	1991-2020	-5.84	-4.43	-0.48	4.84	9.96	13.79	15.20	14.57	10.21	5.37	0.90	-4.13	5.00
	2021-2050	-4.11	-3.62	0.94	5.54	10.45	13.73	16.29	16.70	11.24	5.87	1.10	-2.69	5.87
Precip (mm)	1961-1990	19.06	17.78	21.65	48.89	65.37	81.49	80.41	56.70	39.64	25.08	26.54	22.19	504.80
	1991-2020	17.91	18.56	28.60	43.68	60.04	90.48	80.03	51.72	50.06	46.59	28.91	24.90	541.47
	2021-2050	15.72	16.59	32.74	42.27	57.53	85.00	59.81	39.39	31.13	29.54	30.73	17.10	457.57
UR (%)	1961-1990	88.94	88.03	82.96	75.91	74.19	75.07	76.06	77.04	78.68	81.59	87.24	89.80	81.29
	1991-2020	88.24	85.35	77.66	70.09	69.73	72.97	72.53	73.35	76.51	82.88	88.42	89.90	78.97
	2021-2050	81.57	76.49	70.92	66.44	71.39	67.22	60.21	53.59	58.89	70.22	77.98	80.34	69.61
v (m/s)	1961-1990	2.55	3.03	2.89	3.07	2.72	2.23	1.96	1.81	1.79	1.99	2.19	2.27	2.38
	1991-2020	3.06	3.16	3.51	3.38	3.15	2.75	2.35	2.17	2.37	2.44	2.83	2.94	2.84
	2021-2050	3.48	3.63	3.77	3.67	3.38	3.21	3.09	3.13	3.19	3.29	3.33	3.37	3.38
P (hPa)	1961-1990	992.80	991.62	990.91	987.63	988.80	988.12	988.77	989.79	992.13	994.46	992.33	991.55	990.74
	1991-2020	992.86	991.52	989.98	988.28	988.47	988.22	988.03	989.63	991.03	993.26	992.89	993.19	990.61
	2021-2050	993.55	993.07	991.29	989.27	989.20	989.02	990.30	991.84	992.67	995.49	993.74	993.24	991.86
Sunshine (hours)	1961-1990	63.56	77.19	129.67	166.99	220.66	245.85	264.93	265.90	203.56	150.96	73.17	56.63	1919.05
	1991-2020	69.77	93.11	149.23	199.26	258.98	269.48	299.62	285.58	202.54	147.47	80.77	59.94	2115.76
	2021-2050	72.22	100.17	149.14	199.36	257.82	275.72	303.58	286.10	196.34	144.50	82.87	59.73	2127.55
Cloud cover (tenths)	1961-1990	6.96	7.21	6.63	6.22	5.78	5.29	4.79	4.22	4.63	5.19	6.87	7.29	5.92
	1991-2020	6.94	6.66	6.20	5.78	5.30	5.10	4.35	3.83	4.91	5.57	6.77	6.98	5.70
	2021-2050	6.76	6.24	6.01	5.84	5.42	4.99	4.21	3.93	5.50	5.90	6.98	6.92	5.72
Snow depth (cm)	1961-1990	7.53	9.49	4.37	0.07						0.00	0.83	2.77	25.05
	1991-2020	5.79	5.40	2.12	0.07						0.00	1.31	3.86	18.38
	2021-2050	8.75	6.00	3.56	0.04						0.00	0.73	6.89	25.97

Resita		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	0.01	2.12	5.78	10.23	14.43	16.96	18.38	18.01	14.95	10.46	6.04	1.96	9.94
	1991-2020	0.85	2.48	6.24	11.13	15.23	18.60	20.26	20.09	15.38	10.93	6.72	2.16	13.84
	2021-2050	1.12	1.93	6.47	11.32	15.90	18.81	21.90	21.79	16.49	11.14	5.51	2.24	11.22
T max (°C)	1961-1990	3.26	5.95	11.11	16.40	21.24	23.95	25.94	26.00	22.60	17.38	10.76	4.90	15.79
	1991-2020	4.70	7.04	11.91	17.63	22.10	25.61	27.91	28.30	22.78	17.82	12.05	5.73	16.97
	2021-2050	4.57	6.21	11.87	17.59	22.07	24.95	28.52	28.86	23.46	17.20	10.03	5.71	16.75
T min (°C)	1961-1990	-3.13	-1.20	1.67	5.49	9.24	11.77	12.82	12.60	10.12	6.01	2.64	-0.90	5.59
	1991-2020	-2.56	-1.35	1.72	6.06	9.97	13.22	14.64	14.67	10.79	6.58	2.86	-1.07	6.29
	2021-2050	-1.61	-1.30	2.31	6.22	10.70	13.97	16.46	16.23	11.70	7.08	2.43	-0.45	6.98
Precip (mm)	1961-1990	50.16	39.27	43.74	63.39	96.32	100.54	89.67	73.66	58.29	46.58	50.37	55.71	767.70
	1991-2020	52.08	45.00	43.87	72.24	86.37	102.35	93.35	77.68	72.71	59.47	50.33	60.44	815.88
	2021-2050	54.10	40.20	57.97	60.99	77.10	94.93	62.51	49.73	48.82	50.31	60.68	58.63	715.99
UR (%)	1961-1990	82.52	80.10	75.08	72.97	74.40	75.81	73.97	74.17	76.33	77.41	80.98	83.75	77.29
	1991-2020	85.22	78.87	71.10	69.15	74.73	75.78	73.06	73.55	78.39	81.14	81.34	85.87	77.35
	2021-2050	83.00	79.71	75.56	70.36	75.36	68.48	57.50	53.01	60.92	72.63	81.96	83.30	71.73
v (m/s)	1961-1990	1.58	1.76	1.83	1.80	1.47	1.27	1.13	1.17	1.24	1.46	1.74	1.43	1.49
	1991-2020	1.40	1.75	2.02	1.99	1.77	1.68	1.58	1.43	1.53	1.66	1.81	1.61	1.68
	2021-2050	3.11	3.16	3.35	3.20	2.83	2.67	2.63	2.74	2.84	2.93	2.94	3.06	2.95
P (hPa)	1961-1990	989.72	987.87	987.15	984.21	985.69	985.92	986.51	986.83	989.18	990.77	989.13	988.87	987.65
	1991-2020	986.37	984.64	982.97	980.96	981.62	982.04	981.82	982.71	984.03	985.80	985.20	986.40	983.71
	2021-2050	977.83	976.99	975.23	973.80	974.08	974.48	976.34	977.23	977.68	979.00	977.83	978.13	976.54
Sunshine (hours)	1961-1990	61.92	77.17	129.29	152.19	205.72	221.09	261.29	242.24	189.31	156.57	78.62	50.08	1825.49
	1991-2020	73.80	99.20	144.55	184.11	232.66	263.59	290.87	279.89	194.74	159.91	101.21	62.22	2086.73
	2021-2050	72.60	101.24	148.32	182.70	235.33	266.92	295.94	283.16	187.58	162.26	105.30	60.59	2101.94
Cloud cover (tenths)	1961-1990	7.04	7.10	6.41	6.41	6.03	5.59	4.43	4.18	4.59	4.86	6.81	7.62	5.92
	1991-2020	7.14	6.90	6.38	6.17	6.04	5.27	4.39	4.08	5.25	5.53	6.64	7.37	5.93
	2021-2050	7.28	6.82	5.97	6.89	6.05	5.39	4.15	4.00	5.42	5.35	6.62	7.52	5.93
Snow depth (cm)	1961-1990	13.25	14.19	10.59	0.95						0.03		1.04	46.09
	1991-2020	2.69	3.67	0.69	0.00						0.00	0.17	1.83	9.00
	2021-2050	1.84	2.22	0.83	0.00						0.00	0.18	1.02	9.09

Satu Mare		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-3.21	-0.44	4.50	10.24	15.39	18.38	19.90	19.12	15.08	9.51	4.54	-0.33	9.39
	1991-2020	-1.24	0.32	5.02	11.11	16.26	20.03	21.47	21.06	15.56	10.11	5.20	0.29	19.43
	2021-2050	-0.49	0.78	5.87	11.26	16.25	18.98	21.68	21.13	16.09	10.37	4.55	0.57	10.59
T max (°C)	1961-1990	0.76	4.11	10.35	16.71	21.87	24.74	26.63	26.23	22.43	16.54	8.93	3.01	15.19
	1991-2020	2.45	5.06	11.04	17.99	23.09	26.61	28.58	28.89	23.12	16.94	10.28	3.58	16.47
	2021-2050	2.85	5.37	11.42	17.68	22.62	25.24	28.20	28.02	22.86	16.64	8.80	3.65	16.11
T min (°C)	1961-1990	-6.78	-4.15	0.13	4.73	9.24	12.15	13.41	12.93	9.42	4.37	1.14	-3.44	4.43
	1991-2020	-4.51	-3.34	0.41	4.97	9.55	13.23	14.56	14.01	9.79	5.33	1.35	-2.69	5.22
	2021-2050	-3.43	-2.89	1.62	5.76	10.50	13.33	15.74	15.08	11.01	5.93	1.35	-1.99	6.00
Precip (mm)	1961-1990	38.38	31.03	35.21	42.47	64.49	83.02	65.12	63.68	36.61	37.70	46.84	49.32	593.85
	1991-2020	39.57	39.89	39.24	42.91	66.08	77.01	72.54	51.39	60.97	54.61	43.96	53.44	641.61
	2021-2050	41.53	30.99	38.52	44.80	55.79	80.77	59.34	47.63	39.12	39.51	47.24	44.04	569.26
UR (%)	1961-1990	86.24	83.59	78.13	73.67	73.45	73.48	72.01	75.04	77.41	79.90	84.52	87.90	78.78
	1991-2020	87.90	83.52	75.93	69.82	70.98	71.53	71.33	71.24	76.53	81.63	85.44	88.41	77.85
	2021-2050	84.63	78.77	72.17	68.61	73.13	69.86	59.85	55.45	63.30	72.73	80.77	83.33	71.88
v (m/s)	1961-1990	2.28	2.48	2.87	2.99	2.55	2.37	2.24	1.92	1.95	2.07	2.48	2.36	2.38
	1991-2020	2.17	2.54	2.98	2.76	2.54	2.29	2.15	1.84	2.06	2.11	2.21	2.22	2.32
	2021-2050	3.48	3.54	3.69	3.60	3.19	3.05	3.01	3.02	3.11	3.21	3.27	3.39	3.30
P (hPa)	1961-1990	1004.44	1002.41	1001.19	998.10	999.40	999.16	999.88	1000.51	1002.91	1005.05	1003.42	1003.40	1001.66
	1991-2020	1005.10	1003.25	1001.26	999.00	999.42	999.44	999.24	1000.34	1001.66	1003.90	1003.64	1005.20	1001.79
	2021-2050	1004.64	1004.02	1001.91	999.99	1000.02	999.90	1001.27	1002.80	1003.25	1005.62	1004.51	1004.64	1002.70
Sunshine (hours)	1961-1990	64.22	91.57	148.22	188.61	246.97	255.18	282.05	263.68	203.92	164.75	71.87	49.04	2030.08
	1991-2020	69.33	91.82	153.75	210.79	262.06	282.06	294.54	292.73	201.27	151.27	87.63	53.50	2150.73
	2021-2050	69.53	95.51	162.59	209.31	267.60	289.57	290.73	292.17	194.46	162.98	89.57	54.18	2178.20
Cloud cover (tenths)	1961-1990	7.40	7.02	6.49	6.31	6.04	5.77	5.11	4.74	5.09	5.31	7.32	7.81	6.20
	1991-2020	7.44	7.17	6.58	6.23	6.08	5.78	5.26	4.68	5.84	6.07	7.08	7.81	6.34
	2021-2050	7.38	6.94	5.86	6.68	6.04	5.52	5.44	4.88	6.34	5.58	6.88	7.57	6.27
Snow depth (cm)	1961-1990	4.73	4.40	0.70	0.00						0.00	0.13	2.03	12.00
	1991-2020	2.88	3.26	0.48	0.00						0.00	0.07	1.90	8.52
	2021-2050	2.47	2.77	0.50	0.00						0.00	0.03	1.72	7.49

Sibiu		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-3.13	-0.41	4.32	9.61	14.26	17.06	18.55	17.99	14.48	9.14	4.21	-0.46	8.80
	1991-2020	-2.00	0.20	4.73	10.37	15.14	19.73	20.29	19.83	14.89	9.68	4.57	-0.47	9.66
	2021-2050	-1.62	-0.44	4.95	10.06	14.62	17.78	20.34	20.02	14.97	9.49	3.70	-0.32	9.46
T max (°C)	1961-1990	0.82	4.11	10.00	15.52	20.37	23.19	24.99	24.99	21.63	16.10	8.98	2.89	14.47
	1991-2020	2.29	5.53	10.75	16.69	21.42	25.09	26.95	27.09	21.85	16.61	10.08	3.43	15.65
	2021-2050	2.41	4.34	11.28	16.87	21.22	24.28	27.23	27.32	21.89	15.84	8.66	3.40	15.40
T min (°C)	1961-1990	-8.08	-5.36	-0.97	3.96	8.41	11.37	12.64	12.02	8.67	3.38	-0.46	-4.70	3.41
	1991-2020	-6.58	-4.71	-0.64	4.36	9.01	12.65	14.07	13.67	9.28	4.12	-0.32	-4.70	4.18
	2021-2050	-4.92	-4.34	0.40	4.46	8.85	12.16	14.52	13.90	9.97	4.81	0.37	-3.40	4.73
Precip (mm)	1961-1990	27.65	25.82	31.21	53.53	78.24	98.98	86.31	67.94	51.34	41.56	33.70	30.41	626.70
	1991-2020	25.81	23.20	34.89	53.90	77.23	97.27	94.72	71.14	55.60	46.46	32.49	31.01	643.73
	2021-2050	23.42	23.06	34.54	43.73	65.14	93.88	68.83	48.24	44.25	37.78	35.94	26.18	544.98
UR (%)	1961-1990	87.17	83.36	76.32	73.54	75.03	77.39	76.05	76.80	78.60	80.80	84.81	88.83	79.89
	1991-2020	86.24	79.92	72.28	68.24	71.12	71.98	71.32	72.63	76.56	79.86	82.32	86.70	76.80
	2021-2050	80.94	78.02	74.49	69.85	74.29	68.14	60.03	55.59	63.67	73.81	79.59	81.11	71.63
v (m/s)	1961-1990	1.40	1.87	2.36	2.48	2.19	1.73	1.63	1.47	1.51	1.69	1.80	1.35	1.79
	1991-2020	1.51	1.86	2.34	2.36	2.13	1.95	1.93	1.79	1.92	1.79	1.80	1.56	1.91
	2021-2050	2.89	3.11	3.17	3.17	2.84	2.81	2.68	2.72	2.75	2.70	2.63	2.81	2.86
P (hPa)	1961-1990	965.00	963.26	962.66	960.31	962.18	962.42	963.34	963.88	965.93	967.37	965.15	964.36	963.82
	1991-2020	965.98	964.30	962.88	961.21	962.37	962.81	962.85	963.97	964.89	966.46	965.61	966.33	964.14
	2021-2050	959.00	958.17	955.70	955.58	956.15	956.80	958.65	959.93	960.01	961.34	959.53	958.13	958.41
Sunshine (hours)	1961-1990	69.47	87.78	138.10	158.77	205.17	213.66	245.72	233.06	182.70	160.47	83.32	56.34	1834.55
	1991-2020	73.69	97.04	137.43	171.69	209.71	232.46	253.40	248.70	174.55	148.18	92.18	61.03	1900.06
	2021-2050	73.10	100.69	141.15	173.04	210.43	235.53	256.43	251.39	168.06	150.56	94.51	60.15	1915.04
Cloud cover (tenths)	1961-1990	6.87	6.73	6.32	6.60	6.32	6.12	5.36	4.86	5.04	4.89	6.66	7.40	6.10
	1991-2020	6.73	6.45	6.20	6.10	6.13	5.80	4.96	4.39	5.22	5.30	6.22	7.10	5.87
	2021-2050	6.77	6.42	5.77	6.24	6.07	5.40	4.79	4.26	5.63	5.19	6.21	7.00	5.81
Snow depth (cm)	1961-1990	6.92	5.81	1.09	0.03						0.00	0.41	2.84	17.11
	1991-2020	4.86	3.52	0.97	0.14						0.00	0.83	2.93	13.13
	2021-2050	4.85	3.61	1.22	0.09						0.00	0.42	4.29	14.48

Slobozia		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-2.22	-0.14	4.50	10.98	16.61	20.31	22.07	21.37	17.27	11.21	5.52	0.56	10.67
	1991-2020	-1.23	0.96	5.71	11.38	17.22	21.61	23.83	23.54	18.14	11.99	6.04	0.49	11.64
	2021-2050	-0.18	1.42	6.27	11.85	17.02	20.77	24.01	23.77	18.16	11.65	5.54	0.74	11.75
T max (°C)	1961-1990	1.25	3.65	10.00	17.62	23.03	26.62	28.53	28.06	24.30	17.73	10.04	3.73	16.21
	1991-2020	2.41	5.69	11.66	18.12	23.93	28.13	30.51	30.60	25.13	18.11	10.62	4.14	17.47
	2021-2050	3.60	6.29	12.08	18.50	23.60	27.30	30.84	30.83	25.42	18.08	10.43	4.27	17.60
T min (°C)	1961-1990	-5.43	-3.27	0.20	5.36	10.63	14.26	15.90	15.31	11.49	6.24	1.82	-2.33	5.85
	1991-2020	-4.32	-2.60	1.19	5.67	10.96	15.30	17.18	17.00	12.40	7.40	2.56	-2.43	6.69
	2021-2050	-2.98	-2.23	1.91	6.18	11.02	14.71	17.43	17.08	12.33	6.83	2.02	-1.91	6.87
Precip (mm)	1961-1990	33.32	33.93	30.35	37.54	56.29	62.02	49.96	49.84	40.63	30.24	40.93	39.85	504.90
	1991-2020	29.54	22.50	34.06	36.21	57.53	74.40	49.83	38.44	46.12	44.74	38.45	38.89	510.70
	2021-2050	20.14	18.95	29.59	32.77	43.28	59.13	34.27	20.16	27.39	32.39	35.16	21.11	374.35
UR (%)	1961-1990	86.39	84.67	78.81	71.57	69.88	68.95	67.26	67.79	71.36	76.66	84.28	88.04	76.31
	1991-2020	88.02	82.94	75.10	70.55	69.43	68.04	63.55	61.83	67.61	77.96	85.93	89.06	75.00
	2021-2050	83.24	77.77	71.58	66.04	67.53	61.35	50.11	43.86	54.17	66.98	78.28	82.43	67.11
v (m/s)	1961-1990	4.03	4.38	4.06	3.97	3.51	2.94	2.76	2.57	2.48	2.71	3.17	3.64	3.35
	1991-2020	3.85	3.96	4.04	3.64	3.10	2.88	2.82	2.72	3.00	3.04	3.28	3.69	3.34
	2021-2050	3.87	4.11	4.28	4.00	3.64	3.44	3.49	3.50	3.46	3.55	3.73	3.91	3.75
P (hPa)	1961-1990	1012.96	1011.36	1010.36	1006.57	1007.23	1006.43	1006.78	1007.75	1010.60	1013.48	1012.15	1011.80	1009.79
	1991-2020	1014.10	1012.60	1010.53	1008.26	1007.93	1007.45	1006.91	1008.36	1010.39	1013.37	1013.78	1014.49	1010.68
	2021-2050	1015.43	1014.43	1012.28	1009.95	1008.95	1008.51	1009.49	1010.79	1012.43	1015.54	1014.90	1015.28	1012.33
Sunshine (hours)	1961-1990	67.35	80.47	133.06	181.25	239.43	262.70	288.78	280.97	222.43	182.47	89.53	60.26	2088.70
	1991-2020	82.62	111.88	154.91	202.01	256.68	270.10	311.33	297.75	217.30	164.02	95.65	76.43	2240.66
	2021-2050	83.48	119.39	152.35	206.67	256.52	278.85	319.66	304.39	215.69	162.07	98.41	76.50	2273.98
Cloud cover (tenths)	1961-1990	6.75	6.89	6.39	5.88	5.43	4.76	3.90	3.50	3.90	4.42	6.33	6.98	5.43
	1991-2020	6.71	6.04	5.84	5.34	5.03	4.39	3.48	3.07	4.07	5.02	6.34	6.62	5.16
	2021-2050	6.75	5.65	5.80	5.27	5.09	3.94	3.05	2.74	4.12	5.19	6.32	6.47	5.03
Snow depth (cm)	1961-1990	4.35	3.40	1.14	0.55						0.02	0.69	1.70	11.86
	1991-2020	3.03	2.38	0.51	0.00						0.00	0.14	1.07	7.08
	2021-2050	2.91	3.26	1.23	0.00						0.00	0.15	1.32	8.87

Sulina		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	0.19	0.84	3.91	9.72	15.69	20.10	22.05	21.88	18.31	13.09	7.77	2.96	11.38
	1991-2020	0.93	1.75	5.13	10.37	16.51	21.17	23.57	23.54	18.91	13.65	8.15	3.12	12.23
	2021-2050	1.76	1.89	5.93	10.22	16.57	20.23	23.72	24.25	18.64	12.79	7.56	3.17	12.23
T max (°C)	1961-1990	2.78	3.21	6.19	12.16	18.20	22.80	24.95	24.73	21.04	15.65	10.28	5.46	13.96
	1991-2020	3.52	4.28	7.68	12.77	19.13	24.06	26.68	26.50	21.65	16.11	10.50	5.63	14.88
	2021-2050	4.51	4.74	8.50	13.13	19.86	23.82	27.41	28.04	22.45	16.32	10.91	6.20	15.49
T min (°C)	1961-1990	-2.15	-1.17	2.17	7.96	13.79	17.88	19.56	19.35	15.89	10.80	5.50	0.75	9.19
	1991-2020	-1.32	-0.31	3.27	8.60	14.48	18.78	20.86	20.85	16.43	11.49	6.02	0.86	10.00
	2021-2050	-0.77	-0.70	3.51	7.86	13.53	18.77	19.86	20.40	14.93	9.46	4.39	0.56	9.13
Precip (mm)	1961-1990	15.17	16.82	11.60	15.22	20.19	22.72	20.32	22.10	25.76	12.16	17.38	20.01	219.45
	1991-2020	15.60	11.42	16.88	13.49	19.40	26.65	18.18	22.54	20.79	23.72	21.58	21.11	231.36
	2021-2050	15.66	12.86	16.63	15.89	16.56	26.97	14.03	12.11	12.35	19.71	24.40	19.52	206.68
UR (%)	1961-1990	88.06	87.18	86.57	84.89	82.42	79.95	79.48	79.12	80.62	82.42	86.80	87.96	83.79
	1991-2020	87.68	86.14	83.30	81.16	80.13	78.10	76.49	75.89	78.62	81.81	85.48	87.06	81.82
	2021-2050	80.02	77.98	76.42	77.59	80.09	75.65	68.57	66.15	66.46	70.22	76.72	79.20	74.59
v (m/s)	1961-1990	8.04	7.93	7.41	6.87	6.36	6.03	5.95	5.85	6.36	7.22	7.33	7.88	6.93
	1991-2020	6.89	6.85	7.14	6.31	5.77	5.57	5.11	5.24	5.87	6.35	6.65	7.02	6.21
	2021-2050	6.18	6.15	6.03	5.39	4.81	4.61	4.62	4.73	5.18	5.79	6.01	6.22	5.48
P (hPa)	1961-1990	1018.42	1017.08	1016.41	1012.72	1013.18	1011.96	1012.03	1013.08	1016.19	1019.29	1017.92	1017.25	1015.46
	1991-2020	1018.40	1017.18	1015.23	1013.37	1012.82	1011.79	1011.10	1012.60	1014.91	1017.91	1018.48	1018.82	1015.22
	2021-2050	1018.02	1017.28	1015.41	1013.34	1012.26	1011.60	1012.47	1013.77	1015.56	1018.52	1017.74	1017.77	1015.31
Sunshine (hours)	1961-1990	71.84	75.99	115.08	173.28	255.87	285.03	308.12	292.13	221.44	165.19	85.94	60.30	2110.22
	1991-2020	75.93	103.05	148.29	204.22	278.91	305.14	334.74	308.52	229.68	159.93	89.98	73.39	2311.77
	2021-2050	76.48	107.94	144.49	207.28	284.81	311.80	333.36	309.92	226.37	156.49	93.46	76.97	2329.37
Cloud cover (tenths)	1961-1990	6.97	7.15	6.68	5.70	4.82	3.93	3.10	2.86	3.61	4.82	6.57	7.18	5.28
	1991-2020	7.16	6.53	5.91	5.24	4.47	3.80	2.75	2.52	3.83	5.22	6.73	6.98	5.09
	2021-2050	7.15	6.24	5.99	5.07	4.34	3.56	2.71	2.28	3.75	5.11	6.40	6.69	4.98
Snow depth (cm)	1961-1990	0.04	0.77	0.23	0.00						0.00	0.03	0.07	1.14
	1991-2020	0.77	0.97	0.30	0.00						0.00	0.00	0.62	2.63
	2021-2050	0.00	0.00	0.00	0.00						0.00	0.00	0.00	0.00

Tg. Jiu		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-2.22	0.25	4.95	10.91	15.86	18.93	20.72	19.96	15.92	9.98	4.63	-0.12	9.98
	1991-2020	-1.15	1.17	6.14	11.84	16.76	20.75	22.51	22.01	16.55	10.76	5.30	0.16	11.07
	2021-2050	-0.09	1.61	6.22	11.66	16.39	19.68	22.79	22.70	16.86	10.94	4.82	1.02	11.22
T max (°C)	1961-1990	2.56	5.27	10.97	17.50	22.60	25.76	28.08	27.86	24.07	17.60	10.15	4.22	16.39
	1991-2020	4.07	7.28	12.75	18.68	23.62	27.54	29.81	29.84	24.23	17.88	10.71	4.67	17.59
	2021-2050	4.15	7.37	12.31	18.50	23.10	26.44	30.12	30.35	24.85	17.92	10.14	4.96	17.52
T min (°C)	1961-1990	-6.03	-3.45	0.37	5.50	10.00	12.86	14.11	13.55	10.02	4.73	0.79	-3.44	4.92
	1991-2020	-4.74	-3.02	1.09	5.97	10.43	13.98	15.38	15.35	10.78	6.02	1.64	-2.97	5.83
	2021-2050	-3.35	-2.80	1.53	5.99	10.44	13.54	16.16	16.03	11.32	6.11	1.16	-2.05	6.17
Precip (mm)	1961-1990	53.13	55.81	49.12	67.00	94.07	98.62	69.01	65.28	51.42	53.21	66.36	65.83	788.86
	1991-2020	49.77	43.65	45.21	57.49	80.78	87.58	99.16	68.43	64.18	66.05	57.48	62.02	781.78
	2021-2050	44.87	35.89	46.12	51.60	57.06	79.94	42.44	33.07	33.92	42.17	48.96	43.00	559.05
UR (%)	1961-1990	84.15	81.29	73.72	69.12	69.71	69.63	67.32	69.06	73.65	78.00	82.97	86.91	75.46
	1991-2020	85.62	78.68	69.73	66.31	69.20	68.37	66.43	68.91	74.66	81.19	85.03	87.93	75.17
	2021-2050	83.84	79.21	75.66	70.07	70.66	62.01	53.48	48.41	56.73	70.75	80.70	82.43	69.50
v (m/s)	1961-1990	0.79	0.89	1.26	1.50	1.43	1.32	1.36	1.14	1.01	0.85	0.79	0.58	1.08
	1991-2020	0.78	1.01	1.31	1.34	1.27	1.19	1.16	1.02	0.99	0.83	0.78	0.72	1.03
	2021-2050	1.95	2.36	2.65	2.78	2.62	2.68	2.76	2.88	2.66	2.25	1.98	1.84	2.45
P (hPa)	1961-1990	995.22	993.60	992.69	989.17	990.45	990.11	990.66	991.43	993.98	996.40	994.83	994.36	992.74
	1991-2020	995.82	994.18	992.28	990.21	990.46	990.33	990.04	991.31	992.99	995.54	995.51	996.10	992.90
	2021-2050	995.63	994.57	992.49	990.60	990.21	990.29	991.65	992.82	993.83	996.33	995.32	995.61	993.28
Sunshine (hours)	1961-1990	66.51	80.86	133.04	174.37	219.40	245.14	280.71	256.54	206.09	156.65	81.22	56.82	1957.36
	1991-2020	80.95	107.67	155.74	188.15	226.89	261.47	290.51	272.61	191.82	145.00	84.83	62.67	2068.31
	2021-2050	82.14	114.36	160.95	190.85	227.94	264.25	299.22	277.67	190.52	144.41	92.15	63.45	2107.91
Cloud cover (tenths)	1961-1990	6.73	6.85	6.50	6.34	6.09	5.38	4.49	4.37	4.69	5.15	6.51	7.02	5.84
	1991-2020	6.44	6.12	6.03	6.12	5.91	5.02	4.21	4.18	5.07	5.71	6.75	6.85	5.70
	2021-2050	6.52	5.80	5.47	6.17	6.06	4.87	3.94	3.97	5.35	5.78	6.07	6.76	5.59
Snow depth (cm)	1961-1990	7.31	6.81	1.53	0.00						0.00	0.43	2.74	18.82
	1991-2020	5.09	5.11	0.80	0.00						0.00	0.38	2.14	13.43
	2021-2050	5.81	5.23	0.85	0.00						0.00	0.02	0.05	16.86

Tg. Mures		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-4.44	-1.39	4.08	9.88	14.79	17.57	18.98	18.38	14.52	8.84	3.72	-1.25	8.64
	1991-2020	-2.57	-0.66	4.49	10.56	15.58	19.10	20.61	20.23	15.05	9.43	4.00	-1.03	9.57
	2021-2050	-1.78	-0.37	5.28	10.54	15.37	18.12	20.75	20.49	15.25	9.60	3.79	-0.63	9.70
T max (°C)	1961-1990	-0.50	3.36	10.32	16.43	21.48	24.07	25.79	25.69	22.11	16.22	8.51	1.95	14.62
	1991-2020	1.42	4.79	11.11	17.64	22.61	25.91	27.83	28.08	22.69	16.81	9.55	2.57	15.92
	2021-2050	2.15	4.82	11.59	17.56	22.12	24.89	27.69	27.82	22.66	16.31	8.56	3.03	15.77
T min (°C)	1961-1990	-8.25	-5.45	-1.06	4.01	8.73	11.73	12.92	12.27	8.68	3.39	-0.12	-4.51	3.53
	1991-2020	-5.86	-4.68	-0.62	4.34	9.24	12.90	14.33	13.71	9.24	4.36	0.07	-3.98	4.42
	2021-2050	-4.90	-4.29	0.00	4.78	9.34	12.65	14.97	14.30	9.81	4.77	0.35	-3.48	4.90
Precip (mm)	1961-1990	29.50	23.61	28.66	48.96	74.56	78.04	83.58	63.84	40.02	35.39	32.89	35.11	574.17
	1991-2020	25.62	25.56	30.61	46.53	72.45	92.53	73.89	65.83	54.17	44.28	33.89	35.61	600.99
	2021-2050	27.53	20.98	32.60	42.65	66.70	84.63	62.32	47.77	41.12	35.15	36.03	28.57	516.07
UR (%)	1961-1990	86.56	82.74	73.43	69.18	70.51	72.64	71.87	73.39	76.20	79.23	83.69	87.70	77.26
	1991-2020	87.25	81.12	70.74	65.70	68.02	69.84	69.76	70.27	74.68	79.92	84.63	87.68	75.80
	2021-2050	85.10	79.20	74.68	73.44	76.00	74.01	67.11	63.30	67.06	75.45	82.66	83.94	75.16
v (m/s)	1961-1990	1.39	1.58	1.96	2.16	1.95	1.89	1.82	1.57	1.39	1.34	1.50	1.33	1.66
	1991-2020	1.27	1.50	1.91	2.00	1.80	1.73	1.71	1.50	1.47	1.29	1.30	1.21	1.58
	2021-2050	2.57	2.77	3.07	3.07	2.73	2.61	2.50	2.53	2.59	2.60	2.46	2.54	2.67
P (hPa)	1961-1990	982.52	980.60	979.65	976.91	978.47	978.41	979.23	979.89	982.19	984.10	982.16	981.67	980.48
	1991-2020	983.33	981.55	979.79	977.98	978.66	978.86	978.82	979.90	981.23	983.09	982.61	983.60	980.79
	2021-2050	972.35	971.54	969.84	968.47	968.82	969.25	970.95	972.28	972.50	974.36	972.64	972.45	971.29
Sunshine (hours)	1961-1990	54.45	83.05	147.36	171.09	223.96	233.98	257.36	252.45	194.26	153.70	77.64	42.49	1891.79
	1991-2020	63.81	93.00	154.43	199.32	242.86	265.15	283.32	280.40	193.62	155.31	87.21	51.44	2069.88
	2021-2050	63.29	97.12	158.19	197.95	244.33	269.78	286.35	283.07	186.01	161.00	88.42	50.68	2086.19
Cloud cover (tenths)	1961-1990	7.50	6.97	6.23	6.44	6.09	5.86	5.21	4.65	5.03	5.00	7.01	8.03	6.17
	1991-2020	7.36	6.70	6.11	5.83	5.81	5.26	4.87	4.18	5.23	5.41	6.60	7.58	5.91
	2021-2050	7.33	6.53	5.84	6.07	5.71	5.09	4.74	4.21	5.84	5.16	6.62	7.50	5.86
Snow depth (cm)	1961-1990	7.94	6.41	1.03	0.00						0.00	0.13	3.00	18.51
	1991-2020	5.01	4.95	0.88	0.07						0.00	0.34	2.69	13.84
	2021-2050	3.32	2.57	0.25	0.07						0.00	0.31	3.14	9.66

Timisoara		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-1.53	1.17	5.81	11.25	16.38	19.46	21.13	20.48	16.58	11.04	5.61	0.85	10.69
	1991-2020	0.03	1.86	6.48	12.19	17.16	20.89	22.73	22.47	16.97	11.51	6.37	1.46	11.68
	2021-2050	0.53	1.99	6.54	11.78	16.76	19.30	22.81	22.46	17.27	11.58	5.40	1.62	11.54
T max (°C)	1961-1990	2.19	5.49	11.71	17.48	22.70	25.59	27.74	27.47	23.81	17.96	10.21	4.11	16.37
	1991-2020	3.88	6.80	12.57	18.83	23.72	27.42	29.68	29.89	24.12	18.32	11.50	4.95	17.64
	2021-2050	4.21	7.03	12.69	18.24	23.24	26.08	29.63	29.66	24.53	18.09	10.16	5.14	17.39
T min (°C)	1961-1990	-4.89	-2.32	1.20	5.94	10.64	13.71	14.93	14.62	11.38	6.32	2.12	-2.10	5.96
	1991-2020	-3.02	-1.92	1.53	6.31	11.12	14.76	16.29	16.29	11.95	7.06	2.72	-1.40	6.81
	2021-2050	-2.35	-1.79	1.92	6.11	10.76	13.85	16.37	15.97	11.77	6.79	1.92	-1.04	6.67
Precip (mm)	1961-1990	39.80	36.02	36.69	48.35	64.61	76.02	62.94	49.77	40.29	39.01	48.23	49.75	591.49
	1991-2020	35.74	34.24	34.63	48.31	60.47	80.82	59.49	57.68	51.20	50.41	45.23	46.32	604.54
	2021-2050	38.50	28.90	39.30	42.18	49.89	66.37	47.69	38.89	35.62	36.66	41.93	43.18	509.11
UR (%)	1961-1990	86.89	83.92	76.04	71.30	71.47	71.90	69.35	70.96	74.97	78.40	84.34	88.47	77.33
	1991-2020	85.55	79.47	69.61	65.27	66.61	67.21	64.32	64.40	71.64	77.98	81.80	86.05	73.33
	2021-2050	83.06	77.86	73.02	67.53	70.89	64.10	52.83	49.08	58.54	69.11	81.05	82.86	69.16
v (m/s)	1961-1990	1.99	2.41	2.58	2.66	2.30	2.21	2.13	1.90	1.76	1.91	2.22	2.14	2.19
	1991-2020	1.54	1.78	2.02	1.92	1.85	1.71	1.66	1.47	1.47	1.46	1.58	1.59	1.67
	2021-2050	3.34	3.40	3.64	3.55	3.10	3.00	3.02	2.99	3.02	3.10	3.14	3.27	3.21
P (hPa)	1961-1990	1009.05	1006.84	1005.64	1002.42	1003.61	1003.62	1004.29	1004.62	1007.24	1009.25	1007.94	1008.10	1006.05
	1991-2020	1009.99	1008.06	1006.01	1003.43	1003.76	1003.89	1003.53	1004.42	1006.16	1008.36	1008.18	1009.89	1006.31
	2021-2050	1005.66	1004.84	1002.65	1000.75	1000.55	1000.43	1001.85	1003.02	1003.87	1005.89	1005.23	1005.86	1003.38
Sunshine (hours)	1961-1990	72.08	92.17	155.45	186.29	242.37	262.31	300.62	280.21	217.53	177.31	86.42	56.88	2129.64
	1991-2020	74.19	106.52	165.15	208.06	242.90	263.32	282.37	278.76	194.41	161.87	96.26	60.66	2134.47
	2021-2050	72.77	110.10	170.86	205.49	247.54	267.02	286.38	281.37	188.36	165.75	100.90	61.20	2157.74
Cloud cover (tenths)	1961-1990	7.27	7.07	6.51	6.44	6.13	5.75	4.64	4.40	4.77	4.93	6.96	7.64	6.04
	1991-2020	7.12	6.56	6.07	5.90	5.78	5.18	4.41	4.05	5.20	5.27	6.41	7.44	5.78
	2021-2050	7.31	6.28	5.60	6.01	5.75	5.21	4.17	4.09	5.37	4.96	6.15	7.29	5.70
Snow depth (cm)	1961-1990	4.13	2.33	0.17	0.00						0.00	0.10	1.53	8.27
	1991-2020	1.18	1.92	0.21	0.00						0.00	0.07	1.10	4.44
	2021-2050	1.37	1.56	0.29	0.00						0.00	0.06	0.21	6.61

Tulcea		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-0.94	0.55	4.44	10.81	16.61	20.54	22.19	21.39	17.03	11.28	6.36	1.74	11.00
	1991-2020	0.01	1.60	5.76	11.38	17.28	21.67	23.74	23.06	17.71	12.04	6.72	1.73	11.89
	2021-2050	0.74	2.06	6.23	11.52	16.87	20.82	24.02	23.78	18.14	12.02	6.46	1.62	12.02
T max (°C)	1961-1990	2.92	4.48	9.28	16.40	22.12	25.96	27.75	27.44	23.47	17.35	10.93	5.30	16.12
	1991-2020	3.86	6.22	11.10	17.23	23.17	27.47	29.73	29.58	24.11	17.82	11.23	5.54	17.26
	2021-2050	4.18	6.35	10.89	16.95	22.30	26.27	29.60	29.59	24.10	17.27	10.63	4.93	16.92
T min (°C)	1961-1990	-4.52	-2.79	0.56	6.05	11.15	14.86	16.47	15.60	11.49	6.39	2.39	-1.65	6.33
	1991-2020	-3.34	-2.06	1.53	6.28	11.56	15.72	17.63	16.86	12.22	7.42	3.04	-1.58	7.11
	2021-2050	-1.89	-1.52	2.85	7.08	11.92	15.66	18.51	18.06	13.12	7.79	3.12	-0.96	7.81
Precip (mm)	1961-1990	27.54	29.16	24.81	27.86	34.02	42.09	34.89	25.30	33.92	20.23	29.62	32.24	361.68
	1991-2020	26.51	20.28	24.84	27.41	32.94	43.34	44.51	23.49	33.79	33.44	31.51	32.07	374.18
	2021-2050	20.78	18.23	25.93	26.21	34.17	47.48	26.52	16.99	20.79	24.98	32.86	21.96	316.90
UR (%)	1961-1990	85.12	85.17	81.93	76.79	75.20	73.18	73.63	74.94	78.13	81.77	84.49	85.94	79.69
	1991-2020	84.31	80.92	74.86	70.86	69.20	68.16	67.31	68.56	74.41	80.77	83.70	84.57	75.64
	2021-2050	81.81	77.75	72.55	67.67	69.35	62.95	53.56	50.75	59.29	69.27	78.56	80.98	68.71
v (m/s)	1961-1990	3.64	4.03	4.09	4.25	3.58	3.21	2.87	2.67	2.59	2.76	3.10	3.50	3.36
	1991-2020	2.82	3.15	3.49	3.31	2.90	2.59	2.33	2.14	2.34	2.37	2.73	2.84	2.75
	2021-2050	3.88	4.11	4.23	4.03	3.67	3.56	3.53	3.49	3.52	3.61	3.76	3.87	3.77
P (hPa)	1961-1990	1019.48	1018.06	1017.18	1013.28	1013.66	1012.51	1012.71	1013.80	1016.84	1019.98	1018.56	1018.12	1016.18
	1991-2020	1020.01	1018.67	1016.66	1014.53	1014.02	1013.10	1012.47	1014.06	1016.12	1019.34	1019.87	1020.39	1016.60
	2021-2050	1016.27	1015.49	1013.44	1011.18	1010.16	1009.54	1010.56	1011.89	1013.63	1016.75	1015.96	1016.05	1013.83
Sunshine (hours)	1961-1990	75.70	82.58	131.90	189.66	256.30	286.22	311.21	298.69	236.00	182.68	90.98	66.35	2208.28
	1991-2020	80.95	111.48	159.24	212.27	280.38	306.66	339.67	314.26	232.03	163.87	92.84	77.13	2370.77
	2021-2050	82.19	119.02	155.43	213.81	279.45	318.79	338.18	316.87	228.64	162.18	96.18	80.08	2390.82
Cloud cover (tenths)	1961-1990	6.64	7.05	6.72	5.81	5.08	4.41	3.65	3.39	3.87	4.69	6.53	6.99	5.40
	1991-2020	6.92	6.38	6.04	5.53	5.03	4.35	3.41	3.14	4.33	5.26	6.69	6.75	5.32
	2021-2050	6.91	5.93	6.04	5.43	5.12	4.02	3.17	2.92	4.42	5.52	6.63	6.43	5.21
Snow depth (cm)	1961-1990	2.03	2.43	0.53	0.00						0.00	0.23	1.03	6.25
	1991-2020	3.02	2.08	0.80	0.03						0.00	0.17	1.14	7.20
	2021-2050	3.56	2.26	1.15	0.01						0.00	0.19	2.07	9.24

Turnu Magurele		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-2.29	0.20	5.40	12.08	17.40	20.76	22.56	21.77	17.64	11.22	5.26	0.36	11.03
	1991-2020	-1.10	1.28	6.54	12.45	17.99	22.08	24.09	23.77	18.30	11.94	5.89	0.43	11.92
	2021-2050	-0.38	1.33	6.69	12.05	17.03	20.96	24.30	24.12	18.47	11.75	5.35	0.78	11.87
T max (°C)	1961-1990	1.41	4.66	11.40	19.04	24.16	27.59	29.59	29.20	25.50	18.61	10.42	3.98	17.13
	1991-2020	3.20	6.80	13.25	19.54	25.04	29.17	31.43	31.57	25.99	18.96	10.76	4.46	18.35
	2021-2050	3.34	5.86	12.53	18.60	23.51	27.53	31.22	31.23	25.74	18.03	9.97	4.12	17.64
T min (°C)	1961-1990	-5.63	-3.23	0.88	6.25	11.38	14.67	16.09	15.51	11.65	6.14	1.66	-2.62	6.06
	1991-2020	-4.47	-2.67	1.64	6.47	11.77	15.63	17.44	17.24	12.55	7.30	2.48	-2.71	6.89
	2021-2050	-3.28	-2.59	2.16	6.57	11.28	15.06	17.82	17.53	12.80	7.14	1.97	-1.90	7.05
Precip (mm)	1961-1990	41.26	35.67	37.75	41.16	56.87	62.11	55.14	47.93	35.13	30.04	47.75	44.30	535.11
	1991-2020	35.64	30.81	37.42	42.23	56.72	67.35	56.25	39.15	48.21	50.82	36.02	37.74	538.36
	2021-2050	26.82	28.14	35.89	39.55	50.87	58.16	32.90	22.96	29.23	32.08	41.86	29.65	428.10
UR (%)	1961-1990	86.46	84.39	77.45	69.22	68.49	68.23	66.26	67.41	71.18	77.31	84.96	87.66	75.75
	1991-2020	89.10	84.67	77.30	72.81	72.64	71.45	69.00	68.89	73.81	83.35	88.55	90.64	78.52
	2021-2050	82.95	76.98	72.11	69.46	70.32	62.70	49.94	47.87	55.30	68.77	80.21	82.39	68.23
v (m/s)	1961-1990	2.16	2.34	2.60	2.64	2.27	2.05	1.88	1.77	1.58	1.62	1.91	1.93	2.06
	1991-2020	1.36	1.57	1.85	1.78	1.46	1.29	1.23	1.05	1.24	1.22	1.26	1.29	1.39
	2021-2050	3.22	3.58	3.82	3.64	3.29	3.22	3.13	3.10	3.10	3.14	3.08	3.20	3.29
P (hPa)	1961-1990	1016.76	1014.81	1013.34	1009.31	1010.16	1009.63	1010.06	1010.80	1013.65	1016.57	1015.56	1015.60	1013.02
	1991-2020	1017.30	1015.45	1013.11	1010.46	1010.26	1009.86	1009.29	1010.50	1012.63	1015.74	1016.34	1017.48	1013.20
	2021-2050	1011.53	1010.34	1008.06	1004.76	1004.91	1004.71	1005.28	1006.83	1008.33	1011.23	1010.73	1011.48	1008.30
Sunshine (hours)	1961-1990	64.07	85.31	142.59	196.76	249.12	279.15	314.15	296.84	230.12	170.72	86.68	62.76	2178.28
	1991-2020	86.83	116.81	161.90	205.80	261.37	274.23	307.59	297.83	222.40	161.36	86.96	72.98	2256.06
	2021-2050	88.25	125.61	162.05	210.75	259.13	281.60	318.47	305.29	222.14	160.74	88.57	73.71	2296.31
Cloud cover (tenths)	1961-1990	7.23	6.94	6.15	5.59	5.29	4.51	3.51	3.20	3.49	4.50	6.51	7.11	5.34
	1991-2020	6.71	5.90	5.54	5.27	4.97	4.19	3.38	2.86	3.95	4.92	6.68	6.82	5.10
	2021-2050	6.78	5.58	5.35	5.29	5.11	3.83	2.88	2.50	3.83	5.07	6.49	6.73	4.95
Snow depth (cm)	1961-1990	8.99	5.79	1.00	0.00						0.00	1.03	3.26	20.07
	1991-2020	8.10	5.58	0.92	0.00						0.00	0.86	2.93	18.27
	2021-2050	8.02	6.31	0.70	0.00						0.00	1.15	2.11	22.55

Vladeasa 1800		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-7.59	-7.21	-4.68	-0.43	4.49	7.33	9.10	9.22	6.28	2.78	-2.26	-5.82	0.93
	1991-2020	-6.57	-6.45	-4.36	0.60	5.51	9.16	10.92	11.39	6.72	3.10	-0.87	-5.20	2.00
	2021-2050	-3.40	-2.88	-0.26	4.50	9.23	12.02	14.95	14.55	10.60	6.06	0.86	-2.10	5.35
T max (°C)	1961-1990	-3.60	-3.15	-0.66	3.38	8.19	10.94	12.78	12.90	10.00	6.63	1.40	-2.10	4.73
	1991-2020	-3.13	-2.82	-0.53	4.30	9.34	12.84	14.73	15.29	10.41	6.63	2.43	-1.97	5.63
	2021-2050	-0.31	0.48	3.65	8.89	13.58	16.07	19.38	19.21	14.98	10.05	4.19	0.77	9.24
T min (°C)	1961-1990	-10.11	-9.67	-7.09	-2.81	2.04	4.80	6.49	6.68	3.90	0.26	-4.67	-8.22	-1.53
	1991-2020	-8.99	-8.87	-6.79	-1.75	3.00	6.47	8.20	8.89	4.44	0.70	-3.19	-7.53	-0.45
	2021-2050	-6.19	-6.04	-3.01	1.01	5.49	8.33	10.91	10.45	6.71	2.42	-2.16	-4.88	1.92
Precip (mm)	1961-1990	81.51	70.16	64.66	79.75	127.56	181.33	142.66	131.38	83.03	63.36	77.85	79.99	1183.24
	1991-2020	62.78	59.15	68.00	67.31	105.05	158.78	154.73	109.63	104.18	73.71	64.21	77.83	1105.35
	2021-2050	55.57	47.62	60.60	65.91	86.80	125.92	97.32	79.22	57.34	54.25	65.94	60.71	857.23
UR (%)	1961-1990	85.80	88.69	88.28	87.40	87.09	88.70	87.09	86.29	85.85	81.07	86.57	87.24	86.67
	1991-2020	86.51	88.07	88.38	84.13	84.92	85.97	84.06	81.35	85.65	83.32	83.63	85.86	85.15
	2021-2050	88.16	86.46	86.20	85.41	85.87	83.14	77.98	74.77	79.65	84.06	86.48	87.61	83.82
v (m/s)	1961-1990	9.51	9.09	8.58	7.92	6.74	6.38	6.47	5.71	6.62	6.89	9.42	9.66	7.75
	1991-2020	7.93	7.92	7.91	6.35	6.59	5.04	5.00	4.37	5.47	6.02	6.89	7.65	6.34
	2021-2050	3.69	3.65	3.55	3.44	3.11	2.94	2.66	2.69	2.93	3.09	3.38	3.64	3.23
P (hPa)	1961-1990	808.33	807.39	808.72	809.39	813.60	815.29	817.00	817.57	817.59	817.53	811.55	808.74	812.72
	1991-2020	809.88	808.89	809.46	810.98	814.35	816.65	817.59	818.75	817.04	815.98	812.84	810.79	813.60
	2021-2050	902.73	902.28	901.64	901.51	903.28	904.71	907.08	908.44	907.35	907.38	904.42	903.10	904.49
Sunshine (hours)	1961-1990	84.53	87.18	114.46	134.07	170.42	173.33	212.96	204.88	161.36	158.77	92.77	72.91	1667.65
	1991-2020	89.30	86.30	118.44	151.34	180.80	195.38	226.03	239.14	153.32	139.92	104.35	86.03	1770.37
	2021-2050	88.76	87.77	122.89	151.15	184.25	201.37	225.07	239.20	146.11	146.97	107.32	85.31	1786.17
Cloud cover (tenths)	1961-1990	6.79	7.00	7.34	7.40	7.24	7.22	6.47	6.09	6.30	5.78	7.00	7.05	6.81
	1991-2020	6.97	7.23	7.25	6.93	7.09	6.81	6.22	5.55	6.56	6.34	6.69	6.85	6.71
	2021-2050	7.03	7.14	6.80	7.00	7.10	6.80	6.23	5.66	6.49	6.04	6.62	6.76	6.72
Snow depth (cm)	1961-1990	16.94	23.60	19.98	9.58						1.21	4.38	11.65	87.30
	1991-2020	17.18	19.12	17.69	6.18						1.00	4.31	11.79	76.70
	2021-2050	14.30	16.46	15.82	6.28						0.25	3.07	13.86	70.04

Zalau		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
T mean (°C)	1961-1990	-2.32	0.18	4.77	10.22	15.12	17.89	19.56	19.00	15.30	10.24	4.82	-0.01	9.56
	1991-2020	-0.69	1.00	5.36	11.25	15.98	19.55	21.16	21.03	15.84	10.74	5.73	0.58	10.63
	2021-2050	-0.94	0.28	4.95	10.05	14.87	17.32	20.41	20.04	15.15	9.80	4.08	0.22	9.72
T max (°C)	1961-1990	0.92	3.80	9.44	15.54	20.51	23.20	25.25	25.02	21.33	15.81	8.48	2.86	14.35
	1991-2020	2.57	5.11	10.43	16.89	21.67	25.11	27.09	27.50	21.92	16.24	9.87	3.58	15.66
	2021-2050	2.43	4.44	10.38	16.08	20.79	23.57	26.54	26.51	21.42	15.48	8.33	3.39	14.94
T min (°C)	1961-1990	-4.89	-2.59	1.12	5.61	9.79	12.38	13.68	13.41	10.44	5.95	1.90	-2.39	5.37
	1991-2020	-3.40	-2.10	1.38	6.24	10.52	14.01	15.46	15.30	11.18	6.73	2.55	-1.97	6.33
	2021-2050	-3.94	-3.22	0.84	4.96	9.58	12.53	14.94	14.44	10.52	5.66	0.77	-2.59	5.37
Precip (mm)	1961-1990	35.24	28.39	34.31	52.19	77.26	99.05	72.25	74.92	39.71	34.67	41.99	43.78	633.76
	1991-2020	33.74	31.88	39.38	47.35	79.34	93.40	81.23	60.07	63.90	48.96	43.00	45.94	668.19
	2021-2050	34.26	28.37	36.16	45.26	63.76	86.36	63.41	47.60	41.08	35.90	39.35	36.47	557.97
UR (%)	1961-1990	78.55	74.73	68.75	64.73	67.43	69.12	66.67	69.08	71.19	72.21	77.04	80.87	71.70
	1991-2020	80.68	75.34	66.97	61.34	65.73	67.55	66.53	65.64	71.04	75.40	78.18	82.16	71.38
	2021-2050	83.26	78.22	73.80	70.67	76.85	73.17	64.02	57.94	63.55	74.89	81.73	82.13	73.35
v (m/s)	1961-1990	2.18	2.29	2.48	2.56	2.16	1.90	1.85	1.55	1.62	1.87	2.33	2.06	2.07
	1991-2020	1.58	1.74	1.96	1.94	1.79	1.73	1.61	1.41	1.57	1.62	1.69	1.60	1.69
	2021-2050	3.06	3.22	3.31	3.21	2.85	2.78	2.67	2.68	2.74	2.79	2.93	3.08	2.94
P (hPa)	1961-1990	983.43	981.59	980.77	978.11	979.74	979.76	980.57	981.14	983.30	984.96	982.99	982.58	981.58
	1991-2020	984.14	982.49	980.90	979.07	979.81	980.09	979.99	981.04	982.24	983.91	983.26	984.35	981.77
	2021-2050	977.88	977.37	975.54	974.12	974.57	974.88	976.52	977.83	978.02	979.83	978.31	977.93	976.84
Sunshine (hours)	1961-1990	75.36	92.79	145.96	172.76	226.84	236.58	270.05	255.85	200.71	173.56	83.22	57.57	1991.25
	1991-2020	79.06	97.67	158.66	203.81	249.33	271.86	294.21	291.85	202.02	162.61	102.32	63.15	2176.55
	2021-2050	77.99	100.51	166.83	200.67	254.24	277.94	289.12	292.01	194.94	173.29	104.59	63.10	2195.23
Cloud cover (tenths)	1961-1990	6.72	6.64	6.23	6.21	5.86	5.63	4.87	4.47	4.84	4.70	6.73	7.35	5.85
	1991-2020	6.86	6.66	6.08	5.81	5.70	5.27	4.71	4.14	5.21	5.34	6.19	7.10	5.76
	2021-2050	6.87	6.48	5.50	6.25	5.63	5.14	4.85	4.26	5.73	4.95	6.07	6.86	5.72
Snow depth (cm)	1961-1990	6.05	5.39	0.94	0.00						0.00	0.20	2.77	15.35
	1991-2020	3.36	3.48	0.75							0.00	0.28	2.07	9.90
	2021-2050	2.78	2.55	0.57	0.03						0.00	0.24	2.76	8.93

EXPLANATION

To quantify climatic changes between the analyzed periods, a Standardized Index of Interperiod Statistical Change, SI(ISC), was used. It expresses the difference between the monthly mean of a newer period and the monthly mean of the reference period, divided by the standard deviation of the same month in the reference period. Therefore, the index does not express the difference in the original units of the analyzed parameter, but in standard-deviation units, allowing the intensity of changes to be compared across months, regions, and different climatic parameters.

SI(ISC) does not express change in the original units of the parameter, but standardizes it. This means that the result is no longer in °C, mm, hPa, %, hours, or m/s, but is a unitless value.

For example, an increase of 1 °C does not have the same meaning everywhere. If the variability of a given month is low in a region, 1 °C may represent an important change. If natural variability is high, the same increase may be relatively modest. By dividing by the standard deviation, SI(ISC) answers the question:

How large is the change compared with the normal climatic variability of the reference period?

Thus, the index allows changes to be compared across regions, months, and different parameters.

Positive values indicate an increase relative to the reference period, while negative values indicate a decrease. The index should be interpreted as a standardized measure of interperiod statistical deviation, not as a test of statistical significance and not as isolated evidence of climate change in the causal sense. Through this standardization, absolute differences are related to the normal climatic variability of the reference period, which makes it possible to highlight the areas where change exceeds the usual level of interannual variability.

6.1. Five-class classification and cell coloring

1. Strong increase, $SI(ISC) \geq +1.0$, color: dark red
2. Moderate increase, $+0.5 \leq SI(ISC) < +1.0$, color: light red / orange
3. No relevant change, $-0.5 < SI(ISC) < +0.5$, color: no fill or white
4. Moderate decrease, $-1.0 < SI(ISC) \leq -0.5$, color: light blue
5. Strong decrease, $SI(ISC) \leq -1.0$, color: dark blue

6.2. How the sign is interpreted according to parameter

For temperature, a positive SI(ISC) indicates warming, while a negative ISC indicates cooling.

For precipitation, a positive SI(ISC) indicates a relative pluviometric surplus, while a negative ISC indicates a reduction in monthly amounts.

For relative humidity, negative values may indicate a tendency toward air drying, especially in warm months.

For sunshine duration, positive values indicate an increase in sunshine.

For cloudiness, positive values indicate an increase in cloud cover, while negative values indicate a reduction.

EXPLICAȚII

Pentru cuantificarea schimbărilor climatice dintre perioadele analizate, a fost utilizat Indicele standardizat al schimbării statistice interperiodice, SI(ISC). Acesta exprimă diferența dintre media lunară a unei perioade mai noi și media lunară a perioadei de referință, împărțită la abaterea standard a aceleiași luni din perioada de referință. Prin urmare, indicele nu exprimă diferența în unitățile originale ale parametrului analizat, ci în unități de abatere standard, permițând compararea intensității schimbărilor între luni, regiuni și parametri climatici diferiți.

SI(ISC) nu exprimă schimbarea în unitățile originale ale parametrului, ci o standardizează. Aceasta înseamnă că rezultatul nu mai este exprimat în °C, mm, hPa, %, ore sau m/s, ci este o valoare fără unitate de măsură.

De exemplu, o creștere de 1 °C nu are aceeași semnificație peste tot. Dacă variabilitatea unei anumite luni este redusă într-o regiune, 1 °C poate reprezenta o schimbare importantă. Dacă variabilitatea naturală este ridicată, aceeași creștere poate fi relativ modestă. Prin împărțirea la abaterea standard, SI(ISC) răspunde la întrebarea:

Cât de mare este schimbarea în raport cu variabilitatea climatică normală a perioadei de referință?

Astfel, indicele permite compararea schimbărilor între regiuni, luni și parametri diferiți.

Valorile pozitive indică o creștere față de perioada de referință, în timp ce valorile negative indică o scădere. Indicele trebuie interpretat ca o măsură standardizată a deviației statistice interperiodice, nu ca un test de semnificație statistică și nici ca dovadă izolată a schimbării climatice în sens causal. Prin această standardizare, diferențele absolute sunt raportate la variabilitatea climatică normală a perioadei de referință, ceea ce permite evidențierea ariilor unde schimbarea depășește nivelul obișnuit al variabilității interanuale.

6.1. Clasificarea în cinci clase și colorarea celulelor

1. Creștere puternică, $SI(ISC) \geq +1,0$, culoare: roșu închis
2. Creștere moderată, $+0,5 \leq SI(ISC) < +1,0$, culoare: roșu deschis / portocaliu
3. Fără schimbare relevantă, $-0,5 < SI(ISC) < +0,5$, culoare: fără umplere sau alb
4. Scădere moderată, $-1,0 < SI(ISC) \leq -0,5$, culoare: albastru deschis
5. Scădere puternică, $SI(ISC) \leq -1,0$, culoare: albastru închis

6.2. Cum se interpretează semnul în funcție de parametru

Pentru temperatură, un SI(ISC) pozitiv indică încălzire, iar un SI(ISC) negativ indică răcire.

Pentru precipitații, un SI(ISC) pozitiv indică un surplus pluviometric relativ, iar un SI(ISC) negativ indică o reducere a cantităților lunare.

Pentru umiditatea relativă, valorile negative pot indica o tendință de uscare a aerului, mai ales în lunile calde.

Pentru durata de strălucire a Soarelui, valorile pozitive indică o creștere a insolației.

Pentru nebulozitate, valorile pozitive indică o creștere a acoperirii noroase, iar valorile negative indică o reducere.

For snow cover, negative values are climatologically very important because they may indicate a reduction in mean snow-cover depth or the contraction of areas with consistent accumulation.

A second method verifies the statistical significance of the change at a 95% confidence level (the Welch test), and significant results are highlighted by red font color.

Thus, the background color indicates the direction and intensity of the change, while the red font color marks the values for which the change is statistically significant.

The results obtained by applying the Standardized Index of Interperiod Statistical Change, SI(ISC), and by verifying statistical significance with the Welch test indicate that the changes between the analyzed periods are not distributed randomly, but largely follow the physical-geographical organization of Romania's territory.

In the tables, the background color expresses the direction and intensity of the standardized change, while the red font marks cases in which the difference between periods is statistically significant at the 95% confidence level. Therefore, the most robust interpretations are those in which the intensity indicated by SI(ISC) is accompanied by the statistical significance of the Welch test.

The most coherent statistical signal is thermal. Mean temperature, maximum temperature, and minimum temperature show numerous positive SI(ISC) values, frequently accompanied by statistical significance, especially in the warm semester. This confirms a generalized temperature increase, visible both in low regions - the Romanian Plain, the Western Plain, the Moldavian Plateau, and Dobrogea - and in mountain and depression regions. In plains and plateaus, the signal is very evident for maximum temperatures, indicating the intensification of daytime warming in spring, summer, and early autumn months. In intramontane depressions and higher areas, changes in minimum temperature are important because they suggest the attenuation of cold nocturnal conditions and the reduction in the frequency of very low thermal situations. The monthly temperature maps confirm the same displacement of thermal classes toward higher values between 1961-1990, 1991-2020, and 2021-2050.

The results of the two statistical methods show that the clearest and most robust changes occur for thermal parameters, followed by relative humidity, sunshine duration, and cloudiness. Precipitation, wind, and snow cover show a more regionalized behavior and are more dependent on relief, exposure, and season. By correlating the tables with the relief map, it can be seen that Romania does not display a uniform climatic response: low plains and plateaus tend to show the intensification of warm, sunny, and relatively drier conditions, while the Carpathians retain the role of a cold, humid, snowy, and windy core, but with statistically evident signals of change, especially in the thermal regime.

Pentru stratul de zăpadă, valorile negative sunt foarte importante climatologic, deoarece pot indica o reducere a grosimii medii a stratului de zăpadă sau contracția ariilor cu acumulare consistentă.

O a doua metodă verifică semnificația statistică a schimbării la nivelul de încredere de 95% (testul Welch), iar rezultatele semnificative sunt evidențiate prin culoarea roșie a fontului.

Astfel, culoarea de fundal indică direcția și intensitatea schimbării, în timp ce culoarea roșie a fontului marchează valorile pentru care schimbarea este semnificativă statistic.

Rezultatele obținute prin aplicarea Indicelui standardizat al schimbării statistice interperiodice, SI(ISC), și prin verificarea semnificației statistice cu testul Welch indică faptul că schimbările dintre perioadele analizate nu sunt distribuite aleatoriu, ci urmează în mare măsură organizarea fizico-geografică a teritoriului României. În tabele, culoarea de fundal exprimă direcția și intensitatea schimbării standardizate, iar fontul roșu marchează cazurile în care diferența dintre perioade este semnificativă statistic la nivelul de încredere de 95%.

Prin urmare, interpretările cele mai robuste sunt cele în care intensitatea indicată de SI(ISC) este însoțită de semnificația statistică a testului Welch.

Cel mai coerent semnal statistic este cel termic. Temperatura medie, temperatura maximă și temperatura minimă prezintă numeroase valori pozitive ale SI(ISC), frecvent însoțite de semnificație statistică, mai ales în semestrul cald. Acest lucru confirmă o creștere generalizată a temperaturii, vizibilă atât în regiunile joase - Câmpia Română, Câmpia de Vest, Podișul Moldovei și Dobrogea - cât și în regiunile montane și depresionare. În câmpii și podișuri, semnalul este foarte evident pentru temperaturile maxime, indicând intensificarea încălzirii diurne în lunile de primăvară, vară și început de toamnă. În depresiunile intramontane și în ariile mai înalte, schimbările temperaturii minime sunt importante deoarece sugerează atenuarea condițiilor nocturne reci și reducerea frecvenței situațiilor termice foarte scăzute. Hărțile lunare ale temperaturii confirmă aceeași deplasare a claselor termice către valori mai ridicate între 1961-1990, 1991-2020 și 2021-2050.

Rezultatele celor două metode statistice arată că cele mai clare și mai robuste schimbări apar la parametrii termici, urmați de umiditatea relativă, durata de strălucire a Soarelui și nebulozitate. Precipitațiile, vântul și stratul de zăpadă arată un comportament mai regionalizat și depind mai mult de relief, expunere și sezon. Prin corelarea tabelelor cu harta reliefului, se observă că România nu prezintă un răspuns climatic uniform: câmpiile și podișurile joase tind să arate intensificarea condițiilor calde, însorite și relativ mai uscate, în timp ce Carpații își păstrează rolul de nucleu rece, umed, nivos și vântos, dar cu semnale de schimbare evidente statistic, mai ales în regimul termic.

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ATLAS OF ROMANIA’S MAIN CLIMATIC PARAMETERS

Recent Changes, 1961–2020, and Projections for 2021–2050

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Ionel HAIDU was born in 1956 in Marghita, Bihor County, Romania. Educated at Babeş-Bolyai University (BSc in Geography, 1980) followed by MSc in Hydrology at Vrije Universiteit Brussels and holding a Ph.D. in Geography from "Al. I. Cuza" University of Iasi (1991), he advanced through the academic ranks to full professor and doctoral supervisor in a new field—Technical Geography and GIS. In 1995, he obtained a Certificate in GIS from the College of Surveying and Land Management in Szekesfehervar, Hungary, delivered in partnership with Clark University (USA). He was awarded the "Simion Mehedinți" Prize for Geography of the Romanian Academy (1995). He worked at the "Babes-Bolyai" University in Cluj-Napoca until 2020, but in Romania he also worked as an associate at the Technical University of Bucharest, Faculty of Hydrotechnics, (1995-1999) and at the University of Oradea 1999-2003. From 2001 to 2009 he was repeatedly a visiting professor at the Université de Strasbourg. Between 2011 and 2026 he was a professor at the Université de Lorraine, France where he taught courses in climatology, hydrology, natural hazards, and climate change.



Zsolt MAGYARI-SÁSKA was born in 1975 in Gheorgheni, Harghita County, Romania. In 1998, he completed his university studies in Computer Engineering at the Technical University of Cluj-Napoca, and in 2007 he completed his studies as a Survey Engineer at "Babeş-Bolyai" University. In 2008, he obtained his Ph.D. in Geography from the Faculty of Geography of "Babeş-Bolyai" University, with a focus on GIS and Technical Geography. He currently works as a lecturer at the Gheorgheni Extension of the Faculty of Geography, "Babeş-Bolyai University". He has participated in numerous national and EU-funded research projects and is a multiple recipient of the DOMUS Scholarship of the Hungarian Academy of Sciences. He has authored or co-authored more than 40 Web of Science-indexed scientific papers. His research focuses on applied GIS, spatial data analysis, and computational geography, with particular emphasis on climate change detection, climate-shift analysis, urban heat island assessment, tourism climatology, ecotourism and geotourism suitability modelling, and the development of automated, reproducible geospatial methods using R and Python.



Nicoleta IONAC was born in 1964, in Ocna-Sibiului, Sibiu County, Romania. Graduating the University of Bucharest (Joint-degree B.A. in Geography – English, 1987) and holding a Ph.D. in Geography at the same university (1996), she advanced through her whole academic career to full Professor (2006) and doctoral supervisor (2009) in the field of Climatology, in the same University of Bucharest, where she has been learning and teaching in all along. With her main teaching focus on Meteorology, Climatology, Bioclimatology, Climate Change and Air-Circulation at the Faculty of Geography, where she organized and managed three interdisciplinary study programs (B.A. in Meteorology and Hydrology – 2006, M.A. in Climatology and Water Resources – 2008 and M.A. in Air-Environment Risks and Health Response – 2009), she also had contributions in her fields of interest by publishing over 11 scientific books, atlases, dictionaries and 150 articles, by participating in 100 scientific manifestations and 25 research contracts, by making over 155 scientific reviews in 40 international journals and also by attending important international training stages in modern applied techniques in Climatology, which she has actively promoted mainly as a founding member of the Romanian Association of Climatology (ACR) since 2004.



Adrian IRAȘOC was born in 1997 in Botoșani, Romania. Based on a background education in Mathematics and Computer Science, he later pursued atmospheric research, by graduating the "Alexandru Ioan Cuza" University of Iași with a BSc in Hydrology and Meteorology (2019) and an MSc in Geomatics (2021). In 2019, he joined the National Meteorological Administration of Romania as a meteorologist at the Botoșani weather station. Since June 2020, he has been promoted to a junior researcher position in the Climatology Department of the NMA in Bucharest, where he has been contributing, mainly as member of Meteo Romania's team, to more than ten major research projects, including four Horizon projects and Romania's national climate change adaptation strategy: RO-ADAPT. In 2021 he started his PhD training at the University of Bucharest, focusing on the variability, trends and return periods of sub-hourly extreme precipitation in Romania, while publishing over 15 scientific papers in international journals. In 2024, he obtained an Erasmus CIVIS scholarship for a blended intensive program in the field of interest at the University of Salzburg.

