United Nations Convention to Combat Desertification
Performance review and assessment of implementation system
Seventh reporting process

Report from Montenegro

1 March 2023

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SO1-1 Trends in land cover

Land area

SO1-1.T1: National estimates of the total land area, the area covered by water bodies and total country area

Year	Total land area (km²)	Water bodies (km²)	Total country area (km²)	Comments
2 001	13 577	321	13 898	
2 005	13 577	321	13 898	
2 010	13 579	319	13 898	
2 015	13 579	319	13 898	
2 019	13 579	319	13 898	

Land cover legend and transition matrix

SO1-1.T2: Key Degradation Processes

Degradation Process	Starting Land Cover	Ending Land Cover
Urban Expansion	Croplands	Other Lands
Other wildfire	Tree-covered areas	Other Lands

Are the seven UNCCD land cover classes sufficient to monitor the key degradation processes in your country?

- (•) Yes
- ( ) No

SO1-1.T4: UNCCD land cover legend transition matrix

Original/ Final	Tree-covered areas	Grasslands	Croplands	Wetlands	Artificial surfaces	Other Lands	Water bodies
Tree-covered areas	0	-	-	-	-	-	0
Grasslands	+	0	+	-	-	-	0
Croplands	+	-	0	-	-	-	0
Wetlands	-	-	-	0	-	-	0
Artificial surfaces	+	+	+	+	0	+	0
Other Lands	+	+	+	+	-	0	0
Water bodies	0	0	0	0	0	0	0

Land cover

SO1-1.T5: National estimates of land cover (km²) for the baseline and reporting period

	Tree-covered areas (km²)	Grasslands (km²)	Croplands (km²)	Wetlands (km²)	Artificial surfaces (km²)	Other Lands (km²)	Water bodies (km²)	No data (km²)
2000	8 775	1 661	2 941	100	66	34	321	
2001	8 877	1 656	2 844	100	66	34	321	
2002	8 884	1 656	2 836	100	67	34	321	
2003	8 909	1 653	2 814	99	67	34	321	
2004	8 938	1 655	2 783	99	68	34	321	
2005	8 939	1 655	2 780	100	69	34	321	

	Tree-covered areas (km²)	Grasslands (km²)	Croplands (km²)	Wetlands (km²)	Artificial surfaces (km²)	Other Lands (km²)	Water bodies (km²)	No data (km²)
2006	8 962	1 653	2 758	100	70	34	321	
2007	8 990	1 644	2 737	100	71	35	321	
2008	9 116	1 637	2 617	101	73	35	321	
2009	9 198	1 633	2 537	101	75	36	320	
2010	9 199	1 633	2 533	101	76	36	320	
2011	9 219	1 635	2 509	101	78	36	320	
2012	9 219	1 635	2 505	101	80	37	320	
2013	9 213	1 635	2 507	101	84	38	320	
2014	9 257	1 623	2 470	101	89	38	320	
2015	9 257	1 622	2 467	101	93	38	320	
2016	9 240	1 628	2 475	102	94	39	320	
2017	9 216	1 634	2 487	107	96	39	320	
2018	9 206	1 637	2 490	108	97	39	320	
2019	9 263	1 634	2 436	109	98	39	320	
2020								

Land cover change

SO1-1.T6: National estimates of land cover change (km²) for the baseline period

	Tree-covered areas (km²)	Grasslands (km²)	Croplands (km²)	Wetlands (km²)	Artificial surfaces (km²)	Other Lands (km²)	Water bodies (km²)	Total (km²)
Tree-covered areas (km²)	8 675	14	77	3	2	4	0	8 775
Grasslands (km²)	52	1 605	1	0	3	0	0	1 661
Croplands (km²)	529	3	2 389	0	20	0	0	2 941
Wetlands (km²)	1	0	0	99	0	0	0	100
Artificial surfaces (km²)	0	0	0	0	66	0	0	66
Other Lands (km²)	0	0	0	0	1	33	0	34
Water bodies (km²)	0	0	0	0	0	1	320	321
Total	9 257	1 622	2 467	102	92	38	320	

SO1-1.T7: National estimates of land cover change (km²) for the reporting period

	Tree-covered areas (km²)	Grasslands (km²)	Croplands (km²)	Wetlands (km²)	Artificial surfaces (km²)	Other Lands (km²)	Water bodies (km²)	Total land area (km²)
Tree-covered areas (km²)	9 165	25	57	7	1	2	0	9 257
Total	9 262	1 634	2 436	108	98	39	320	

	Tree-covered areas (km²)	Grasslands (km²)	Croplands (km²)	Wetlands (km²)	Artificial surfaces (km²)	Other Lands (km²)	Water bodies (km²)	Total land area (km²)
Grasslands (km²)	14	1 606	0	0	2	0	0	1 622
Croplands (km²)	83	3	2 379	0	2	0	0	2 467
Wetlands (km²)	0	0	0	101	0	0	0	101
Artificial surfaces (km²)	0	0	0	0	93	0	0	93
Other Lands (km²)	0	0	0	0	0	37	0	37
Water bodies (km²)	0	0	0	0	0	0	320	320
Total	9 262	1 634	2 436	108	98	39	320	

Land cover degradation

SO1-1.T8: National estimates of land cover degradation (km²) in the baseline period

	Area (km²)	Percent of total land area (%)
Land area with degraded land cover	128	0 .9
Land area with non-degraded land cover	13 769	99 .1
Land area with no land cover data	0	0 .0

SO1-1.T9: National estimates of land cover degradation (km²) in the reporting period

	Area (km²)	Percent of total land area (%)
Land area with improved land cover	97	0 .7
Land area with stable land cover	13 700	98 .6
Land area with degraded land cover	99	0 .7
Land area with no land cover data	0	0 .0

General comments

No coment.

SO1-2 Trends in land productivity or functioning of the land

Land productivity dynamics

SO1-2.T1: National estimates of land productivity dynamics (in km²) within each land cover class for the baseline period

Land cover class	Net land productivity dynamics (km²) for the baseline period					
	Declining (km²)	Moderate Decline (km²)	Stressed (km²)	Stable (km²)	Increasing (km²)	No Data (km²)
Tree-covered areas	9	552	1 213	1 613	5 286	1
Grasslands	32	66	190	470	845	1
Croplands	18	75	523	805	966	1
Wetlands	0	0	2	7	90	0
Artificial surfaces	0	1	54	6	4	0
Other Lands	5	1	11	5	10	0
Water bodies	0	1	63	36	59	161

SO1-2.T2: National estimates of land productivity dynamics (in km²) within each land cover class for the reporting period.

Land cover class	Net land productivity dynamics (km²) for the reporting period					
	Declining (km²)	Moderate Decline (km²)	Stressed (km²)	Stable (km²)	Increasing (km²)	No Data (km²)
Tree-covered areas	3	343	1 370	1 779	5 291	2
Grasslands	4	19	181	515	877	0
Croplands	4	51	696	598	986	0
Wetlands	0	1	4	17	78	0
Artificial surfaces	0	1	63	2	3	0
Other Lands	2	0	15	8	7	0
Water bodies	1	10	88	13	48	161

SO1-2.T3: National estimates of land productivity dynamics for areas where a land conversion to a new land cover class has taken place (in km²) for the baseline period.

Land Conversion		Net land productivity dynamics (km²) for the baseline period					
From	To	Net area change (km²)	Declining (km²)	Moderate Decline (km²)	Stressed (km²)	Stable (km²)	Increasing (km²)
Croplands	Tree-covered areas	529	0	24	56	131	317
Tree-covered areas	Croplands	77	0	6	32	15	24
Grasslands	Tree-covered areas	52	0	0	3	14	36
Croplands	Artificial surfaces	20	0	0	15	3	1

SO1-2.T4: National estimates of land productivity dynamics for areas where a land conversion to a new land cover class has taken place (in km²) for the reporting period.

Land Conversion		Net land productivity dynamics (km²) for the reporting period					
From	To	Net area change (km²)	Declining (km²)	Moderate Decline (km²)	Stressed (km²)	Stable (km²)	Increasing (km²)
Croplands	Tree-covered areas	420	0	13	63	97	246
Tree-covered areas	Croplands	101	0	4	50	19	28
Grasslands	Tree-covered areas	53	0	0	4	16	33
Tree-covered areas	Grasslands	32	0	1	12	8	11

Land Productivity degradation

SO1-2.T5: National estimates of land productivity degradation in the baseline period

	Area (km²)	Percent of total land area (%)
Land area with degraded land productivity	793	5 .8
Land area with non-degraded land productivity	12 780	94 .1
Land area with no land productivity data	3	0 .0

SO1-2.T6: National estimates of land productivity degradation in the reporting period

	Area (km²)	Percent of total land area (%)
Land area with improved land productivity	7 572	55 .8
Land area with stable land productivity	5 555	40 .9
Land area with degraded land productivity	447	3 .3
Land area with no land productivity data	2	0 .0

General comments

The LPD dataset was not verified on field. However, our experience with the previous reporting process was that LPD dataset has medium level of confidence, and that it well recognized the area affected by fires and urbanization. In the forthcoming period we will further analyse the results from the two periods.

SO1-3 Trends in carbon stocks above and below ground

Soil organic carbon stocks

SO1-3.T1: National estimates of the soil organic carbon stock in topsoil (0-30 cm) within each land cover class (in tonnes per hectare).

Year	Soil organic carbon stock in topsoil (t/ha)						
	Tree-covered areas	Grasslands	Croplands	Wetlands	Artificial surfaces	Other Lands	Water bodies
2000	166	164	113	190	137	200	14
2001	164	164	117	190	136	200	14
2002	164	164	117	190	135	199	14
2003	163	164	118	190	134	200	14
2004	163	164	119	191	133	199	14
2005	163	164	119	190	130	200	14
2006	162	164	120	190	129	200	14
2007	162	165	121	189	127	199	14
2008	159	166	127	188	124	198	14
2009	158	166	131	188	121	193	14
2010	158	166	131	188	118	190	14
2011	158	166	132	187	115	188	14
2012	158	166	133	187	112	184	14
2013	158	166	132	187	107	183	14
2014	157	167	134	187	102	181	14
2015	157	169	133	199	97	185	14
2016	158	168	133	199	95	180	14
2017	158	168	132	188	93	181	14
2018	158	167	132	187	92	178	14
2019	157	168	135	186	92	177	14
2020							

If you opted not to use default Tier 1 data, what did you use to calculate the estimates above?

- ○ Modified Tier 1 methods and data
- ○ Tier 2 (additional use of country-specific data)
- ○ Tier 3 (more complex methods involving ground measurements and modelling)

SO1-3.T2: National estimates of the change in soil organic carbon stock in soil due to land conversion to a new land cover class in the baseline period

Land Conversion		Soil organic carbon (SOC) stock change in the baseline period					
From	To	Net area change (km²)	Initial SOC stock (t/ha)	Final SOC stock (t/ha)	Initial SOC stock total (t)	Final SOC stock total (t)	SOC stock change (t)
Croplands	Tree-covered areas	529	141 .7	157 .6	7 497 198	8 337 036	839 838

Land Conversion		Soil organic carbon (SOC) stock change in the baseline period					
From	To	Net area change (km²)	Initial SOC stock (t/ha)	Final SOC stock (t/ha)	Initial SOC stock total (t)	Final SOC stock total (t)	SOC stock change (t)
Grasslands	Tree-covered areas	52	159 .4	159 .4	828 708	828 708	0
Croplands	Artificial surfaces	20	98 .9	73 .4	197 731	146 798	-50 933
Tree-covered areas	Croplands	77	149 .1	136 .7	1 148 014	1 052 914	-95 100

SO1-3.T3: National estimates of the change in soil organic carbon stock in soil due to land conversion to a new land cover class in the reporting period

Land Conversion		Soil organic carbon (SOC) stock change in the reporting period					
From	To	Net area change (km²)	Initial SOC stock (t/ha)	Final SOC stock (t/ha)	Initial SOC stock total (t)	Final SOC stock total (t)	SOC stock change (t)
Croplands	Tree-covered areas	83	124 .0	125 .7	1 029 600	1 043 678	14 078
Tree-covered areas	Grasslands	25	161 .1	161 .2	402 764	403 116	352
Grasslands	Tree-covered areas	14	143 .1	143 .1	200 336	200 336	0
Tree-covered areas	Croplands	57	147 .6	143 .5	841 413	818 074	-23 339

Soil organic carbon stock degradation

SO1-3.T4: National estimates of soil organic carbon stock degradation in the baseline period

	Area (km²)	Percent of total land area (%)
Land area with degraded soil organic carbon (SOC)	51	0 .4
Land area with non-degraded SOC	13 517	99 .5
Land area with no SOC data	7	0 .1

SO1-3.T5: National estimates of SOC stock degradation in the reporting period

	Area (km²)	Percent of total land area (%)
Land area with improved SOC	0	0 .0
Land area with stable SOC	13 535	99 .7
Land area with degraded SOC	33	0 .2
Land area with no SOC data	8	0 .1

General comments

Global data on SOC stocks have medium level of confidence and do not accurately present the actual situation. The main reason are the higher presence of rock outcrops and soils with higher gravel content. The national SOC stocks data should be checked, verified and systematized in order to be presented spatially with a higher degree of confidence.

SO1-4 Proportion of degraded land over the total land area

Proportion of degraded land over the total land area (Sustainable Development Goal Indicator 15.3.1)

SO1-4.T1: National estimates of the total area of degraded land (in km²), and the proportion of degraded land relative to the total land area

	Total area of degraded land (km²)	Proportion of degraded land over the total land area (%)
Baseline Period	913	6 .7
Reporting Period	905	6 .7
Change in degraded extent	-8	

Method

Did you use the SO1-1, SO1-2 and SO1-3 indicators (i.e. land cover, land productivity dynamics and soil organic carbon stock) to compute the proportion of degraded land?

Which indicators did you use?

☒ Land Cover
☒ Land Productivity Dynamics
☒ SOC Stock

Did you apply the one-out, all-out principle to compute the proportion of degraded land?

◉ Yes
○ No

Level of Confidence

Indicate your country's level of confidence in the assessment of the proportion of degraded land:

○ High (based on comprehensive evidence)
◉ Medium (based on partial evidence)
○ Low (based on limited evidence)

Describe why the assessment has been given the level of confidence selected above:

During LDN TSP and field surveys for the asssessment of potential hotspots, we found that the level of confidence of LPD dataset was medium. However, the North-Eastern part of Montenengro is characterized by presence of linear soil erosion features which can not be assessed with the proposed methodology. The medium level of confidence for the obtained results is assessed by soil experts.

False positives/ False negatives

SO1-4.T3: Justify why any area identified as degraded or non-degraded in the SO1-1, SO1-2 or SO1-3 indicator data should or should not be included in the overall Sustainable Development Goal indicator 15.3.1 calculation.

Location Name	Type	Recode Options	Area (km²)	Process driving false +/- outcome	Basis for Judgement	Edit Polygon

Perform qualitative assessments of areas identified as degraded or improved

SO1-4.T4: Degradation hotspots

Hotspots	Location	Area (km²)	Assessment Process	Direct drivers of land degradation hotspots	Action(s) taken to redress degradation in terms of Land Degradation Neutrality response hierarchy	Remediating action(s) (both forward-looking and current)	Edit Polygon
Total no. of hotspots	0						

SO-1: To improve the condition of affected ecosystems, combat desertification/land degradation, promote sustainable land management and contribute to land degradation neutrality.

Hotspots	Location	Area (km²)	Assessment Process	Direct drivers of land degradation hotspots	Action(s) taken to redress degradation in terms of Land Degradation Neutrality response hierarchy	Remediating action(s) (both forward-looking and current)	Edit Polygon
Total hotspot area	0						

What is/are the indirect driver(s) of land degradation at the national level?

1.
2.
3.
4.
5.

SO1-4.T5: Improvement brightspots

Brightspots	Location	Area (km²)	Assessment Process	What action(s) led to the brightspot in terms of the Land Degradation Neutrality hierarchy?	Implementing action(s) (both forward-looking and current)	Edit Polygon
Total no. of brightpots		0				
Total brightspot area		0				

What are the enabling and instrumental responses at the national level driving the occurrence of brightspots?

1.
2.
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8.
9.
10.

General comments

Brightspots and hotspots assessment required on-field analysis for verification, which is time consuming and requires non-winter weather conditions for field working. In our previous report hotspots were mainly related to the areas affected by wildfires and urbanization. The plan is to accurately verify the obtained results in the future period.

SO1 Voluntary Targets

SO1-VT.T1: Voluntary Land Degradation Neutrality targets and other targets relevant to strategic objective 1

Target	Year	Location(s)	Total Target Area (km²)	Overarching type of Land Degradation Neutrality (LDN) intervention	Targeted action(s)	Status of target achievement	Is this an LDN target? If so, under which process was it defined/adopted?	Which other important goals are also being addressed by this target?	Edit Polygon
Avoiding, minimizing land degradation and redirecting land use changes	2030	Montenegro	230	☒ Avoid ☒ Reduce ☐ Reverse	• General instrument (e.g. policies, economic incentives) • Other/general /unspecified ◦ Achieve LDN ◦ Improve land productivity (unspecified land use) ◦ Avoid/prevent/halt degradation (of degraded lands) • Restore/improve multiple land uses	Extended or postponed	◉ Yes ○ No Participation in the LDN Target Setting Programme		
Total			Sum of all targeted areas 905						

Target	Year	Location(s)	Total Target Area (km²)	Overarching type of Land Degradation Neutrality (LDN) intervention	Targeted action(s)	Status of target achievement	Is this an LDN target? If so, under which process was it defined/adopted?	Which other important goals are also being addressed by this target?	Edit Polygon

Increase of land productivity	2030	Montenegro	230	☒ Avoid
				☒ Reduce
				☐ Reverse
					• Restore/improve croplands
					  ◦ Improve water use for irrigation
					  ◦ Increase land productivity in agricultural areas
					  ◦ Rehabilitate bare or degraded land for crop production
					• Other/general /unspecified
					  ◦ Achieve LDN
					• Restore/improve grasslands
					  ◦ Restore and improve pastures
					  ◦ Improve land productivity in grasslands
					• Manage artificial surfaces
					  ◦ Restore degraded mining areas
					  ◦ Improve land productivity on artificial surfaces
					• Restore/improve protected areas
					• Restore/improve tree-covered areas
					  ◦ Increase land productivity in tree covered areas
					• Increase tree-covered area extent
					  ◦ Increase tree covered land (net gain) e.g. plantations
					• Restore productivity and soil organic carbon stock in croplands and grasslands
					• Increase soil fertility and carbon stock
					  ◦ Reduce soil erosion
					  ◦ Maintain the current level of SOC
					  ◦ Rehabilitate bare land and/or restore degraded land
					  ◦ Increase carbon stock and reduce
						Extended or postponed	◉ Yes
							○ No
							Participation in the LDN Target Setting Programme		

Total			Sum of all targeted areas 905						

Target	Year	Location(s)	Total Target Area (km²)	Overarching type of Land Degradation Neutrality (LDN) intervention	Targeted action(s)	Status of target achievement	Is this an LDN target? If so, under which process was it defined/adopted?	Which other important goals are also being addressed by this target?	Edit Polygon
					soil/land degradation • Reduce/halt conversion of multiple land uses				
Protection of natural ecosystems from wildfires	2030	Montenegro	230	☒ Avoid ☒ Reduce ☐ Reverse	• Restore/improve croplands ◦ Practise sustainable land management ◦ Improve water use for irrigation ◦ Rehabilitate bare or degraded land for crop production • Other/general /unspecified ◦ Achieve LDN • Restore/improve grasslands ◦ Restore rangeland (e.g. by controlling livestock and wildfires) ◦ Restore and improve pastures • Restore/improve tree-covered areas ◦ Reduce/halt deforestation and conversion of tree cover to other land cover types (e.g. conserving forest land) ◦ Restore tree-covered areas ◦ Improve tree cover management e.g. fire management • Increase tree-covered area extent ◦ Increase tree covered land (net gain) e.g. plantations • Increase soil fertility and carbon stock ◦ Reduce soil erosion ◦ Increase carbon stock and reduce soil/land degradation	Extended or postponed	◉ Yes ○ No Participation in the LDN Target Setting Programme		
Total			Sum of all targeted areas 905						

SO-1: To improve the condition of affected ecosystems, combat desertification/land degradation, promote sustainable land management and contribute to land degradation neutrality.

Target	Year	Location(s)	Total Target Area (km²)	Overarching type of Land Degradation Neutrality (LDN) intervention	Targeted action(s)	Status of target achievement	Is this an LDN target? If so, under which process was it defined/adopted?	Which other important goals are also being addressed by this target?	Edit Polygon
Improvement of soil monitoring system	2030	Montenegro	215	☒ Avoid ☐ Reduce ☐ Reverse	• General instrument (e.g. policies, economic incentives) • Other/general /unspecified ◦ Achieve LDN ◦ Other/general /unspecified	Extended or postponed	◉ Yes ○ No Participation in the LDN Target Setting Programme		
Total			Sum of all targeted areas 905						

SO1.IA.T1: Areas of implemented action related to the targets (projects and initiatives on the ground).

Relevant Target	Implemented Action	Location (placename)	Action start date	Extent of action	Total Area Implemented So Far (km²) Sum of all areas relevant to actions under the same target	Edit Polygon
					Avoiding, minimizing land degradation and redirecting land use changes: 0 .00 Increase of land productivity: 0 .00 Protection of natural ecosystems from wildfires: 0 .00 Improvement of soil monitoring system: 0 .00	

General comments

National voluntary targets are presented in LDN TSP report. The current activities in the country are related to preparation of concept note and project proposal in the area of land degradation. The realization and impact of this project will contribute to LDN achievment.

SO2-1 Trends in population living below the relative poverty line and/or income inequality in affected areas

Relevant metric

Choose the metric that is relevant to your country:

- ○ Proportion of population below the international poverty line
- ◉ Income inequality (Gini Index)

Income inequality (Gini Index)

SO2-1.T2: National estimates of income inequality (Gini index)

Year	Income inequality (Gini Index)
2000	
2001	
2002	
2003	
2004	
2005	25 .9
2006	24 .4
2007	26 .4
2008	25 .3
2009	26 .4
2010	24 .3
2011	25 .9
2012	26 .5
2013	38 .5
2014	36 .5
2015	36 .5
2016	36 .5
2017	36 .7
2018	34 .7
2019	34 .1
2020	32 .9

Qualitative assessment

SO2-1.T3: Interpretation of the indicator

Indicator metric	Change in the indicator	Comments
Income inequality (Gini Index)	Decrease	Gini coefficient, as an indicator of income inequality (on a scale from 0 – fully equality to 100 – fully inequality), in 2020 was 32.9 and compared to 2019 it decreased by 1.2 percentage point.

General comments

Survey on income and living conditions is an annual survey regularly implemented by Statistical Office, from 2013. The data collected by this survey make possible the calculation of indicator on monetary risk from poverty and of indicator on income distribution inequality in a society. The indicators are based on the concept of relative poverty, which takes into account the disposable income of household, the number of household members (household size) and the distribution of income within the population. EU-SILC survey is a required source for monitoring statistics on income, poverty and social exclusion, in order to ensure comparable data both for every country and at the EU level as total. Average annual equalized disposable income, as mean of equalized disposable income, in 2019 was 4 241 euro, while median annual equalized disposable income, as median value of the equalized disposable income, was 3 768 euro. At-risk-of-poverty threshold, set to 60% of the median of national equalized disposable income, in 2019 at annual level was 2 261 euro for one-person household, while for household with two adult persons and two children under 14, was 4 748 euro. At-risk-of-poverty rate in 2019 was 24.5%, which represents a share of persons whose equalized disposable income is below at-risk-of-poverty threshold. These persons are not necessarily poor, they are just at higher risk to be, because their equalized disposable income is below at-risk-of-poverty threshold. According to age, persons under 18, were the most exposed to the risk of poverty (33.7%), as well as persons aged 18 to 24 (30.5%). The lowest at-risk-of-poverty rate was for persons aged 65 and over (15.1%). According to the type of the household, the highest at-risk-of-poverty rate was for persons in households consisted of two adults with three or more dependent children (45.0%), then persons in households consisted of one (single) parent with one or more dependent children (35.4%). Depending on activity status, for persons aged 18 and over, the lowest at-risk-of-poverty rate was for employed at employer (7.0%), while unemployed were exposed to the highest risk of poverty (45.5%). At-risk-of-poverty or social exclusion rate, as a percentage of people at risk of poverty and/or are extremely materially deprived and/or live in households with very low work intensity, in 2019 was 30.5%. Severe material deprivation rate, in 2019 was 12.0% and it shows the proportion of persons living in households that cannot afford at least four out of nine material deprivation items. Gini coefficient, as indicator of income inequality, in 2019 was 34.1. Data for 2020 are preliminary. Income distribution inequality – quintile ratio (S80/S20) in 2019 was 6.7, which indicates that 20% of citizens with the highest income (the fifth quintile) had 6.7 times more income than 20% of citizens with the lowest income (the first quintile). Data are available on following link: https://www.monstat.org/eng/novosti.php?id=3206

SO2-2 Trends in access to safe drinking water in affected areas

Proportion of population using safely managed drinking water services

SO2-2.T1: National estimates of the proportion of population using safely managed drinking water services

Year	Urban (%)	Rural (%)	Total (%)
2000			
2001			
2002			
2003			
2004			
2005			
2006			
2007			
2008			
2009			
2010			
2011			
2012	87.1		84.4
2013	87.1		84.5
2014	87.2		84.6
2015	87.2		84.7
2016	87.3		84.8
2017	87.3		84.9
2018	87.3		85
2019	87.3		85
2020	87.3		85.1

Qualitative assessment

SO2-2.T2: Interpretation of the indicator

Change in the indicator	Comments
No change	https://datatopics.worldbank.org/sdgs/index.html

General comments

The Government of Montenegro adopted the document „Projection of long-term water supply in Montenegro until 2040“, on the session held on 23rd March, 2018. The purpose of this document is to point out, first of all, the technical solutions that create conditions for the sound functioning of local systems for water supply, reduction of losses, optimization in the use of water sources and delivered water, providing additional water if analysis shows that this is necessary, with an aim to establish a comprehensive and functional system of water supply in municipalities, in the medium period to 2025 and the long-term period to 2040. It is estimated that the population of Montenegro in the next period will grow, so that 2025 will be 673,761 inhabitants, and 2040 Montenegro will have population of 736,602. However, the population trend is not uniform throughout the territory of Montenegro. A characteristic of most of the municipalities of the northern region is the trend of continuous decline of the population, especially the rural population. The greatest population growth has been evident in Rozaje. Central and southern region recorded a steady growth in population, with the exception of Cetinje, which also recorded a steady decline in population. Those changes will have impact on necessity of improvement of water supply system. The planned water supply covers the existing capacity of water supply system, including the elimination of registered losses in the network and ensuring of the necessary amount of water that needs to meet the economic and demographic development of the smaller towns and rural areas. For all water utilities, the specification of investment funds that will need to be invested in the period up to 2025, for the construction of pipelines, reservoirs, pumping stations, treatment plants, for reduction of losses, and for reconstruction of network, etc., has been done. Available quantities of water in the existing water sources in the future will be sufficient to supply Andrijevica, Berane, Danilovgrad, Kolašin,

Plužine, Podgorica, Petnjica and Savnik. For water supply of Gusinje, Zabljak, Mojkovac, Niksic, Pljevlja, Rozaje and Plav, in order to ensure regular supply of water, the new water sources will be needed to include in the system. As for the coastal municipalities, after the putting the Regional Water Supply System into operation, Bar and Budva have a sufficient amount of water, and Ulcinj will be provided the missing quantities, from the regional water supply and by purification of water from the source Lisna Bori. For three municipalities in the Kotor Bay, supplying sufficient amounts of water up to 2025, and 2040, will require construction of the second phase of the Regional water supply system. Problems in the water supply are manifested most often through water shortages, mainly in the dry period, due to a drop in pressure in higher parts of the system, too high pressure in the network, frequent main breakdowns of pipelines or pumping stations, insufficiently constructed distribution system (the development of the system did not follow the development of the settlement), inadequate interventions and others. Water shortages are mainly related to insufficient amounts of water in springs, and are mainly expressed in during the summer period, when the need for water is greatest. A drop in network pressure is usually an indication that there is not enough tank space or the distribution network is of insufficient capacity, and excessive pressure in the network is an indicator of bad system zoning. Currently, Montenegro is dealing with protection of the "Bolje sestre" water source from which the Montenegrin coast is supplied with drinking water and which is an underground source of high-quality water. Its abundance is currently threatened and shows a significant decrease compared to 2005, when the abundance was 2660 l/s . Activities are currently being carried out with the aim of improving risk management in the area of groundwater quality and protecting the "Bolje sestre" source, detecting water losses in the regional water supply system, improving the GIS system, as well as monitoring the operating parameters of the regional water supply system in real time. Certainly the most significant activity is the preparation of the study "Monitoring and protection of the spring of Bolje sestre", which will more precisely determine the III zone of sanitary protection of the spring, which entails determining the origin of the water and the catchment area and providing short-term and long-term measures for managing the risk of additional reduction of generosity. When it comes to quality of water in water sources in Montenegro, which are used for public water supply, analyses show that quality is very good. Physical and chemical characteristics of water meet the prescribed conditions, and deviations comes only after heavy rainfall, when it comes to water turbidity, and as in the case of Kotor and Tivat, where we have high salinity of water in the summer period, due to natural sources which are located almost at sea level. The only treatment that is necessary to implement in all springs used for water supply, is the chlorination of water. After examining the current situation of water supply system of municipalities, it can be concluded that the main problem of water supply is very high percentage of losses in water supply systems. This is due to inadequate maintenance of water supply system. In Montenegro, until 2040 in the water sector will need to be invested 232.815 million €, or € 123.6 million by 2025. Of the total amount (in 2040) in the continental part applies 140 125 000 €, and on the coastal 92 690 000 €, respectively by 2025 at the continental part 62 600 000 €, and at the coastal, 61 000 000 €. When it comes to rural areas, problem of construction and maintenance of water supply in rural areas is mainly due to dispersion of rural settlements. Only few rural settlements are grouped in a relatively small area, while in most cases the distance between the individual objects is large so the costs of construction and maintenance of the distribution network are usually higher than in urban water supply systems. Own water supply sources are represented mainly where the objects are very dispersed and where the inhabitants are forced to solve the problem of water supply by themselves. It is necessary to bring existing rural water supply systems to appropriate level of equipment and to ensure the zone of sanitary protection to prevent pollution of water sources. According to Montenegro and Montenegro Roma settlements multiple indicator cluster survey 2013, in Montenegro, almost all of the population uses an improved source of drinking water (99 percent). 82 percent of the population uses water piped into their dwelling from a public or local water supply as their main source of drinking water. A higher percentage of the population in the richest quintile uses water piped into their dwelling (97 percent) than the population in the poorest quintile (47 percent). A high proportion of population in Montenegro uses improved sanitation facility (96 percent). In the North, 89 percent of the household population use improved sanitation facilities compared to all in the Central region and the South. 94 percent of the population has a flush toilet connected either to a sewage system or septic tank. Septic tanks are much more common in rural areas (70 percent) compared to urban areas (34 percent). 95 percent of the household population in Montenegro uses improved drinking water sources and improved sanitation. The population using improved sources of drinking water are those using any of the following types of supply: piped water (into dwelling, compound, yard or plot, public tap/standpipe), tube well/borehole, protected well, protected spring and rainwater collection. Bottled water is considered an improved water source only if the household is using an improved water source for hand washing and cooking. According to the Monstat (Bureau of Statistics)-Water supply to settlements and water protection, in 2020, compared to 2017, the amount of water captured and taken over by business entities that manage public water supply and public sewerage in Montenegro recorded a growth of 1.9%. Most of the water is taken from underground and spring water, 80.2%, while only 1.6% is taken from surface water, and 18.2% of the total amount of water is taken from other water supply systems. In 2020, the delivered amount of water in Montenegro was 1.9% less than in 2017. Water losses in Montenegro in 2020 compared to 2017 increased by 4.4%. The length of the public water supply network in 2020 was 5,482.0 km. The amount of treated wastewater in 2020 increased by 78.7% compared to 2017.

SO2-3 Trends in the proportion of population exposed to land degradation disaggregated by sex

Proportion of the population exposed to land degradation disaggregated by sex

SO2-3.T1: National estimates of the proportion of population exposed to land degradation disaggregated by sex.

Time period	Population exposed (count)	Percentage of total population exposed (%)	Female population exposed (count)	Percentage of total female population exposed (%)	Male population exposed (count)	Percentage of total male population exposed (%)
Baseline period	41077	7 .1	20780	7 .1	20297	7 .1
Reporting period	39358	6 .9	19938	6 .9	19420	6 .9

Qualitative assessment

SO2-3.T2: Interpretation of the indicator

Change in the indicator	Comments
Decrease	

General comments

SO2 Voluntary Targets

SO2-VT.T1

Target	Year	Level of application	Status of target achievement	Comments
Ensure social stability and reduce the rate of poverty	2030	National	Ongoing	The main nationally available indicators for poverty reduction are the risk rate of of poverty and the rate of risk of poverty and social exclusion. The at-risk-of-poverty rate shows the proportion of the population whose disposable income is equivalent below the relative poverty line (threshold), which in 2020 amounted to € 2,347 per year for a single person, that is, € 4,928 for a household of four. Rate of risk of poverty and social exclusion in addition to income, it takes into account the dimensions of material deprivation as well as the intensity of work. The indicators show that, with certain oscillations, it has been recorded in the last five years positive trend and that the poverty risk rate (for the total population) has decreased from 24% in 2016. to 22.6% in 2020. The poverty risk rate for women is slightly lower (usually by less than one percentage point) in the observed period compared to men, which represents progress compared to the period before 2016, when women were at greater risk of poverty than men. If this trend were to continue, the task (reducing the rate to 12% by 2030) would not was achieved, which means that it is necessary to intensify the reduction efforts in the following period. Poverty, especially in light of the effects of the COVID-19 pandemic and other global disruptions that will the effects on the factors on which the income and living conditions of the population depend are additionally felt in the current and in the following years.
To achieve preconditions for sustainable and balanced economic development, which will reduce the rate of economically vulnerable population	2030	National	Ongoing	In contrast to the poverty risk rate for the total population, a markedly negative trend was recorded in rate movements by region. While the rate in the central and southern regions has declined over the past five year, in the north it increased by 5 percentage points, which deepened the gap between them even more the more developed part of the country and the less developed north. In 2020, the population of the north of Montenegro was at even four times greater risk of poverty compared to the population of the southern region (rate of 44.5% in the north compared to 11.6% in the south). In the period 2016 - 2021, there were changes in the relationship between the central and southern regions so that at the end of the observed period the risk rate of poverty rate was lower in the south (11.6% compared to 14.8% in the central part), while at the beginning of the period the situation was reversed (19.8 in the south, 16.8 in the central part). The movement of the poverty risk rate by region shows that the regional development policy did not produce the expected results, despite significant efforts through, for example, programs to improve competitiveness and cluster development, such as and through the implementation of the Regional Development Strategy 2014-2020 and other initiatives. According to the reports of implementation of the Regional Development Strategy, investments in the northern region are in 2019 and 2020 amounted, respectively, to €353 million (50% of the total invested amount) and €198 million (30% of the total). Rates poverty, however, clearly state that a fundamental change in the approach to regional development is necessary
Improve the system of allocation of social benefits and support programs intended for citizens who need it most	2030	National	Ongoing	When it comes to the implementation of social policy programs and measures, there are not enough of detailed data on the part of the population covered by social protection systems/levels, which, among other factors, shows the need to reform the social protection system. Data from Monstat's SILC research show that the poverty risk rate (in 2020) without of social transfers is 27.8%, which means that total social benefits (excluding pensions) reduce the rate by about 5pp (to 22.6%). Further analysis is needed on whether this is sufficient and in proportion to budget expenditures, and how social effects can be improved with targeted measures poverty reduction policies.

Target	Year	Level of application	Status of target achievement	Comments
Improve the health of the population by implementing the measures referring to improvement of air quality, access to drinking water and safe food, as well as safe management of industrial waste, and measures for monitoring and reducing all other forms of pollution of the environment.	2030	National	Ongoing	Regarding the achievement of access to safe drinking water and access to appropriate sanitation/hygienic conditions, the UN Country Situation Analysis states that in 2017, over 90% of the population had access to basic drinking water supply and basic sanitary conditions, but there are still gaps in providing equal access to safely managed services, especially in rural areas.

General comments

The COVID-19 pandemic contributed to a 15.3% drop in GDP in 2020. Registered unemployment (annual average) in 2020 was 13.4% higher than in 2019. The socioeconomic impact assessment showed that around 21% of employees experienced a reduction in wages, and that vulnerable groups suffered disproportionately from the main health and socio- economic consequences. The rate of risk of poverty, i.e. the share of the population whose income is below the national poverty line (€ 2,347 for a one-person household) was reduced to 22.6% in 2020. A positive trend was also recorded for poverty and social exclusion and deprivation of children, but the rate of 38.6% is high and worrying. Poverty is on the rise in the north, where the poverty risk rate (44.5%) is four times higher than in the southern region. Among the main achievements, a stable trend of reducing the poverty risk rate in the last 5 years stands out. In addition, the at-risk-of-poverty rate for women is no longer above the total (as was the case until 2016), which can be linked to policies and measures that have encouraged women's economic empowerment. Despite the progress, a significant number of challenges remain, including further and more dynamic reduction of poverty, especially of children, while improving the social and child protection system, especially in relation to vulnerable groups. Significant changes are needed in regional development policy, as well as better coordination and improvement of employment policy. Despite the fact that every third child and every fourth adult are at risk of poverty, Montenegro does not have a strategic framework for reducing poverty. In Montenegro, the water is generally drinkable, while in some regions there are accidents that contaminate the water. During bad weather, the water often becomes cloudy. In 2020, a total of 18,012 samples of drinking water from city waterworks and other public water supply facilities were tested. Out of the total number of tested samples, 6.82% of the samples were defective. This problem is particularly pronounced in Pljevlje, where citizens very often encounter the impossibility of using water from the city's water supply. Source: Second Voluntary National Report: Montenegro and the Sustainable Development Goals 2016 - 2021 (2022)

SO3-1 Trends in the proportion of land under drought over the total land area

Drought hazard indicator

SO3-1.T1: National estimates of the land area in each drought intensity class as defined by the Standardized Precipitation Index (SPI) or other nationally relevant drought indices

	Drought intensity classes				
	Mild drought (km²)	Moderate drought (km²)	Severe drought (km²)	Extreme drought (km²)	Non-drought (km²)
2000	13 376	201	0	0	0
2001	6 409	0	0	0	7 168
2002	8 703	1 646	0	0	3 228
2003	6 350	126	0	0	7 101
2004	0	0	0	0	13 577
2005	0	0	0	0	13 577
2006	7 606	1 215	0	0	4 756
2007	10 249	2 200	0	0	1 128
2008	8 975	0	0	0	4 602
2009	0	0	0	0	13 577
2010	0	0	0	0	13 577
2011	4 832	3 596	1 073	4 101	0
2012	3 475	0	0	0	10 102
2013	78	0	0	0	13 499
2014	0	0	0	0	13 577
2015	9 284	3 256	453	392	192
2016	0	0	0	0	13 577
2017	12 539	83	371	0	584
2018	908	0	0	0	12 669
2019	3 706	0	0	0	9 871
2020		10 222	2 759		596
2021	10 222	2 075			1 280

SO3-1.T2: Summary table for land area under drought without class break down

	Total area under drought (km²)	Proportion of land under drought (%)
2000	13 577	100 .0
2001	6 409	47 .2
2002	10 349	76 .2
2003	6 476	47 .7
2004	0	0 .0

	Total area under drought (km²)	Proportion of land under drought (%)
2005	0	0 .0
2006	8 821	65 .0
2007	12 449	91 .7
2008	8 975	66 .1
2009	0	0 .0
2010	0	0 .0
2011	13 577	100 .0
2012	3 475	25 .6
2013	78	0 .6
2014	0	0 .0
2015	13 385	98 .6
2016	0	0 .0
2017	12 993	95 .7
2018	908	6 .7
2019	3 706	27 .3
2020	12 981	95 .6
2021	12 297	90 .6

Qualitative assessment:

Data from the main meteorological stations were used. Due to missing data, no mapping was done in SAGA GIS, so the area under drought was estimated based on the representativeness of the main meteorological, climatological and precipitation stations. Provided data were aligned with the surface area of Montenegro (13 577km2).

General comments

Drought monitoring in Montenegro was established within the framework of the IPA project DMCSEE (Center for Drought Management for the Region of Southeast Europe www.dmcsee.org, www.dmcsee.eu) co-financed by the European Union through the program of intergovernmental cooperation in Southeast Europe. Monitoring is realized by calculating the SPI index (ie standardized precipitation index) at different time intervals, and using the Drought Watch tool, developed in INTERREG DRIDANUBE (www.droughtwatch.eu). One of the main aspects of drought mitigation and planning is assessment of what is vulnerable and why. Within the framework of the "DMCSEE" project, a map of the vulnerability of agricultural areas to drought was created. Factors that cause vulnerability to droughts are numerous, and their inclusion often depends on the availability of data (eg land use, land cover, mitigation measures - such as irrigation, social and economic status of the population, etc.). In this case, to obtain a map of the vulnerability of agricultural areas to drought, the following are included: terrain slope, duration of sunshine, precipitation variation coefficient, soil type and land use. This map should serve as an indicator of areas that require a more detailed drought risk assessment, which could be helpful to decision makers in identifying appropriate mitigation measures before the next drought occurs, as well as to planners in order to reduce the impact of droughts and create conditions for sustainable agricultural development. sector.

SO3-2 Trends in the proportion of the population exposed to drought

Drought exposure indicator

Exposure is defined in terms of the number of people who are exposed to drought as calculated from the SO3-1 indicator data.

SO3-2.T1: National estimates of the percentage of the total population within each drought intensity class as well as the total population count and the proportion of the national population exposed to drought regardless of intensity.

	Non-exposed		Mild drought		Moderate drought		Severe drought		Extreme drought		Exposed population	
Reporting year	Population count	%	Population count	%	Population count	%	Population count	%	Population count	%	Population count	%
2000	0	0.0	579014	99.6	2203	0.4	0	0.0	0	0.0	581 217	100.0
2001	212893	36.4	371945	63.6	0	0.0	0	0.0	0	0.0	371 945	63.6
2002	150041	25.8	346850	59.6	84796	14.6	0	0.0	0	0.0	431 646	74.2
2003	186260	31.8	394521	67.4	4842	0.8	0	0.0	0	0.0	399 363	68.2
2004	580065	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2005	581819	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2006	270842	46.8	244021	42.1	64290	11.1	0	0.0	0	0.0	308 311	53.2
2007	26143	4.5	440762	76.3	110771	19.2	0	0.0	0	0.0	551 533	95.5
2008	86370	15.0	487778	85.0	0	0.0	0	0.0	0	0.0	487 778	85.0
2009	574801	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2010	574161	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2011	0	0.0	71362	12.4	167883	29.2	46343	8.1	289461	50.3	575 049	100.0
2012	476236	83.1	97112	16.9	0	0.0	0	0.0	0	0.0	97 112	16.9
2013	574444	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2014	571002	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2015	3079	0.5	268009	47.0	199542	35.0	88366	15.5	11109	1.9	567 026	99.5
2016	569008	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2017	25250	4.4	526155	92.3	7293	1.3	11224	2.0	0	0.0	544 672	95.6
2018	457999	80.5	110944	19.5	0	0.0	0	0.0	0	0.0	110 944	19.5
2019	516302	91.0	50926	9.0	0	0.0	0	0.0	0	0.0	50 926	9.0
2020		-		-		-		-		-	-	-
2021		-		-		-		-		-	-	-

SO3-2.T2: National estimates of the percentage of the female population within each drought intensity class.

	Non-exposed		Mild drought		Moderate drought		Severe drought		Extreme drought		Exposed female population	
Reporting year	Population count	%	Population count	%	Population count	%	Population count	%	Population count	%	Population count	%
2000	0	0.0	294256	99.6	1114	0.4	0	0.0	0	0.0	295 370	100.0

	Non-exposed		Mild drought		Moderate drought		Severe drought		Extreme drought		Exposed female population	
Reporting year	Population count	%	Population count	%	Population count	%	Population count	%	Population count	%	Population count	%
2001	108366	36.5	188849	63.5	0	0.0	0	0.0	0	0.0	188 849	63.5
2002	76233	25.8	176233	59.6	43158	14.6	0	0.0	0	0.0	219 391	74.2
2003	94633	31.8	200369	67.4	2454	0.8	0	0.0	0	0.0	202 823	68.2
2004	295042	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2005	295888	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2006	137487	46.8	123934	42.2	32605	11.1	0	0.0	0	0.0	156 539	53.2
2007	13266	4.5	223851	76.3	56334	19.2	0	0.0	0	0.0	280 185	95.5
2008	43872	15.0	247706	85.0	0	0.0	0	0.0	0	0.0	247 706	85.0
2009	291806	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2010	291242	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2011	0	0.0	36221	12.4	85051	29.2	23483	8.1	146554	50.3	291 309	100.0
2012	241204	83.1	49135	16.9	0	0.0	0	0.0	0	0.0	49 135	16.9
2013	290766	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2014	288983	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2015	1559	0.5	135660	47.0	100880	35.0	44692	15.5	5622	1.9	286 854	99.5
2016	287786	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2017	12781	4.4	266592	92.3	3697	1.3	5678	2.0	0	0.0	275 967	95.6
2018	232157	80.5	56211	19.5	0	0.0	0	0.0	0	0.0	56 211	19.5
2019	261830	91.0	25846	9.0	0	0.0	0	0.0	0	0.0	25 846	9.0
2020		-		-		-		-		-	-	-
2021		-		-		-		-		-	-	-

SO3-2.T3: National estimates of the percentage of the male population within each drought intensity class.

	Non-exposed		Mild drought		Moderate drought		Severe drought		Extreme drought		Exposed male population	
Reporting year	Population count	%	Population count	%	Population count	%	Population count	%	Population count	%	Population count	%
2000	0	0.0	284758	99.6	1089	0.4	0	0.0	0	0.0	285 847	100.0
2001	104527	36.3	183096	63.7	0	0.0	0	0.0	0	0.0	183 096	63.7
2002	73808	25.8	170617	59.6	41638	14.6	0	0.0	0	0.0	212 255	74.2
2003	91627	31.8	194152	67.4	2388	0.8	0	0.0	0	0.0	196 540	68.2
2004	285023	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2005	285931	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

	Non-exposed		Mild drought		Moderate drought		Severe drought		Extreme drought		Exposed male population	
Reporting year	Population count	%	Population count	%	Population count	%	Population count	%	Population count	%	Population count	%
2006	133355	46.8	120087	42.1	31685	11.1	0	0.0	0	0.0	151 772	53.2
2007	12877	4.5	216911	76.3	54437	19.2	0	0.0	0	0.0	271 348	95.5
2008	42498	15.0	240072	85.0	0	0.0	0	0.0	0	0.0	240 072	85.0
2009	282995	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2010	282919	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2011	0	0.0	35141	12.4	82832	29.2	22860	8.1	142907	50.4	283 740	100.0
2012	235032	83.0	47977	17.0	0	0.0	0	0.0	0	0.0	47 977	17.0
2013	283678	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2014	282019	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2015	1520	0.5	132349	47.0	98662	35.0	43674	15.5	5487	1.9	280 172	99.5
2016	281222	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2017	12469	4.4	259563	92.3	3596	1.3	5546	2.0	0	0.0	268 705	95.6
2018	225842	80.5	54733	19.5	0	0.0	0	0.0	0	0.0	54 733	19.5
2019	254472	91.0	25080	9.0	0	0.0	0	0.0	0	0.0	25 080	9.0
2020		-		-		-		-		-	-	-
2021		-		-		-		-		-	-	-

Qualitative assessment

Interpretation of the indicator

No national data available for this indicator.

General comments

SO3-3 Trends in the degree of drought vulnerability

Drought Vulnerability Index

SO3-3.T1: National estimates of the Drought Vulnerability Index

Year	Total country-level DVI value (tier 1)	Male DVI value (tiers 2 and 3 only)	Female DVI value (tiers 2 and 3 only)
2000			
2001			
2002			
2003			
2004			
2005			
2006			
2007			
2008			
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018	0 .43		
2019			
2020			
2021			

Method

Which tier level did you use to compute the DVI?

☐ Tier 1 Vulnerability Assessment ⓘ
☐ Tier 2 Vulnerability Assessment ⓘ
☐ Tier 3 Vulnerability Assessment ⓘ

Qualitative assessment

SO3-3.T2: Interpretation of the indicator

	Change in the indicator	Comments

General comments

Drought monitoring in Montenegro was established within the framework of the IPA project DMCSEE (Center for Drought Management for the Region of Southeast Europe www.dmcsee.org, www.dmcsee.eu) co-financed by the European Union through the program of intergovernmental cooperation in Southeast Europe. Monitoring is realized by calculating the SPI index (ie standardized precipitation index) at different time intervals. One of the main aspects of drought mitigation and planning is assessment of what is vulnerable and why. Within the framework of the "DMCSEE" project, a map of the vulnerability of agricultural areas to drought was created. Factors that cause vulnerability to droughts are numerous, and their inclusion often depends on the availability of data (eg land use, land cover, mitigation measures - such as irrigation, social and economic status of the population, etc.). In this case, to obtain a map of the vulnerability of agricultural areas to drought, the following are included: terrain slope, duration of sunshine, precipitation variation coefficient, soil type and

land use. This map should serve as an indicator of areas that require a more detailed drought risk assessment, which could be helpful to decision makers in identifying appropriate mitigation measures before the next drought occurs, as well as to planners in order to reduce the impact of droughts and create conditions for sustainable agricultural development. sector. National data for DVI are not available and it would require substantial time to calculate it.

SO-3: To mitigate, adapt to, and manage the effects of drought in order to enhance resilience of vulnerable populations and ecosystems.

SO3 Voluntary Targets

SO3-VT.T1

Target	Year	Level of application	Status of target achievement	Comments

SO-3: To mitigate, adapt to, and manage the effects of drought in order to enhance resilience of vulnerable populations and ecosystems.

Target	Year	Level of application	Status of target achievement	Comments
To improve the system of monitoring and forecast of floods and droughts	2030	National	Ongoing	Regular monitoring, forecasting and provision of information on weather, climate and climate change is done by Institute of Hydrometeorology and Seismology (IHMS). The network of meteorological stations on the territory of Montenegro is under the authority of IHMS and consists of 10 major automatic, 20 climatological (ordinary) and 30 precipitation stations. The network of meteorological stations is properly arranged in appropriate areas and at different altitudes, so that they provide the necessary amount of data to monitor and study weather and climate. On the main meteorological stations and a small number of climatological stations from which data are sent to international exchange, measurements and observations are done every hour, and these tasks are performed by a professional (permanent employees) observers. In a number of climate stations, measurements and observations are carried out 3 times a day (7h, 14h, 21h), while on precipitation stations, measurements and observations are carried out at 07h every day. Besides this, there are weather stations that are not under the jurisdiction of IHMS. These are set and maintained by other institutions and organizations or IHMS maintains them on request of various users. Such stations are aeronautical meteorological stations at airports in Golubovci and Tivat, and 2 climatological stations in national parks. The stations are equipped with the following sensors: temperature and relative humidity, speed and direction of wind, global solar radiation, rainfall, atmosphere pressure and soil temperature at 5 depths. Automatic measuring equipment was installed at the climatic stations Kotor and Danilovgrad, as well as at the number of rainfall stations. The full automation of measurements at all climatological and precipitation stations is planned to be finished in the coming period. Data from 6 main meteorological stations (2 at the airports) are transmitted daily to the International Regional Centers in Sofia and Offenbach every hour, which are then transmitted to the World Meteorological Organization (WMO) by the Global Telecommunication System (GTS). Permanent Drought monitoring in Montenegro was established as part of the IPA project DMCSEE (Center for Drought Management for the Region of Southeast Europe www.dmcsee.org, www.dmcsee.eu), co-financed by the European Union through the Southeast European Cooperation Program. Monitoring is carried out by Institute of Hydrometeorology and Seismology, by calculating the SPI index (ie standardized precipitation index) at different time intervals (30 days, 60 days, month, season, year, etc.) monthly SPI and by monthly display of FVC and LAI indices related to vegetation status, and these were calculated from data obtained through the LANDSAF satellite. The SPI index analyzes the beginning, duration and intensity of drought. Agrometeorological activities have been performed at the Institute of Hydrometeorology and Seismology, Department for applied meteorology and climate change. One of the main activities are related to the collection, input and control of data from the meteorological stations network (processing, control and analysis of data on soil temperatures, phenology and evapotranspiration, production of agrometeorological information and yearbooks, production of specific agrometeorological information and forecasts for individual area. IHMS databases is consisted of a phenological database, with data from 25 phenological stations and on soil temperatures, with 11 meteorological stations saved in CLIDATA database. The phenological data refers on following categories: fruit growing, vines, arable farming, forest trees, plant diseases and pests, beekeeping and general field work. The soil temperature data saved in CLIDATA, contains temperature data at seven depths: 2, 5, 10, 20, 30, 50 and 100cm. Monthly agrometeorological bulletins are available on IHMS web site and, besides standard climatological analyses of observed air temperature and precipitation and anomalies, those bulletins contain information about soil temperature. Please, note, that since around 2007 there is a rapid decrease in the number of precipitation and climatological stations. IHMS also coordinates the hydrological stations network, groundwater and surface water, as well, and data from those stations could be very useful in addressing the drought and floods. The hydrological surface water network is consisted of 44 stations, spread all over the country, which provide data on water level of different watercourses and lakes. Data are automatically sent to IHMS database, and are available on IHMS web site. Hydrological yearbooks are prepared annually and available on IHMS web site. Also, during 2019, a network of groundwater monitoring stations was established, and put in place. Most of those stations, 34 out of 49, are automatic and data are transferred to database in IHMS. IHMS is also responsible for water quality monitoring, which is in a process of alignment with EU Water Framework Directive.

SO-3: To mitigate, adapt to, and manage the effects of drought in order to enhance resilience of vulnerable populations and ecosystems.

Target	Year	Level of application	Status of target achievement	Comments
National Drought Autrhority to be established		National	Not achieved	National Drought Authority has not been established yet, as the National Drought Plan has not been officially adopted by the Government of Montenegro yet. The deadline for establishment of NDA has not been prescribed.

General comments

Montenegro has experienced significant variations in weather patterns over the years, which have had negative impacts on the livelihoods and economy. Monitoring and evaluation of climate in Montenegro shows that heat waves are becoming increasingly common and that their length shows huge variability from year to year. Available data shows that, during the recent decades, the occurrence of intense droughts, was common in Montenegro, with the largest consequences in the forestry, agriculture and water sector. Also, it is obvious that public awareness regarding drought and its impacts complexity and necessity for serious and detailed analyses, is slightly increasing in Montenegro. This is supported by fact that Montenegro actively takes parts in international activities regarding drought. In that sense, Montenegro supported Drought Initiative, launched at the Conference of the UNCCD Parties, held in 2017, in Ordos, China, which was an impulse for further highlight of this issue and a first step in preparation of National Drought Plan. The National Drought Plan was developed with support of UNCCD. The process was coordinated by the Government of Montenegro, through the Ministry of Sustainable Development and Tourism, and in a close cooperation with Montenegro National Focal Point for UNCCD, representing Institute of Hydrometeorology and Seismology of Montenegro. National Working Group (NWG) for development of National Drought Plan for Montenegro, was established by Ministry of Sustainable Development and Tourism, and gathered representatives from state and local administration, private sector, as well as an NGO. It represents the first strategic document on national level dedicated specifically to drought issue. It gives an analysis of current situation when it comes to legislation, plans and policies related to agriculture, water management, biodiversity, etc. Drought policy is analyzed through three dimensions (Drought monitoring, forecasting, and impact assessment, Drought risk and vulnerability, and Drought mitigation and preparedness). A Chapter on drought monitoring, forecasting and impact assessment has described drought indices that are being used in Montenegro (Standardized Precipitation Index, Leaf Area Index, Fractional vegetation cover, Precipitation Deficit and indicators in Drought Watch tool). Current monitoring, forecasting and data collection, maintained by the Institute of Hydrometeorology and Seismology, as well as drought impacts, has been described in this Chapter. Drought risk and vulnerability has been assessed by using Drought Watch tool (www.droughtwatch.eu), as an open interactive web application created within a framework of DriDanube project. National Drought Plan sets long-term goals with proposed measures for achieving them, identifies ways to prepare for droughts and defines a necessary institutional set up and policy makers involvement in corresponding actions, which will help in overcoming the gaps in the drought decision-making processes and improve drought emergency responses.

SO4-1 Trends in carbon stocks above and below ground

Soil organic carbon stocks

Trends in carbon stock above and below ground is a multi-purpose indicator used to measure progress towards both strategic objectives 1 and 4. Quantitative data and a qualitative assessment of trends in this indicator are reported under strategic objective 1, progress indicator SO1-3.

SO4-2 Trends in abundance and distribution of selected species

SO4-2.T1: National estimates of the Red List Index of species survival

Year	Red List Index	Lower Bound	Upper Bound	Comment
2000	0 .85509	0 .84899	0 .86082	
2001	0 .85244	0 .84605	0 .85802	
2002	0 .84966	0 .84338	0 .85542	
2003	0 .84635	0 .8397	0 .8525	
2004	0 .84438	0 .8365	0 .84988	
2005	0 .84191	0 .83186	0 .84718	
2006	0 .84001	0 .82751	0 .8446	
2007	0 .83671	0 .8238	0 .84443	
2008	0 .83421	0 .81922	0 .8447	
2009	0 .83218	0 .81491	0 .84523	
2010	0 .82841	0 .80992	0 .84583	
2011	0 .8263	0 .80558	0 .84593	
2012	0 .82357	0 .80122	0 .84611	
2013	0 .82111	0 .79532	0 .84637	
2014	0 .81781	0 .79117	0 .84658	
2015	0 .81603	0 .78573	0 .84682	
2016	0 .81357	0 .77783	0 .84702	
2017	0 .81007	0 .77271	0 .84757	
2018	0 .80796	0 .76911	0 .84784	
2019	0 .80535	0 .76422	0 .84764	
2020	0 .80278	0 .75857	0 .84841	

Qualitative assessment

SO4-2.T2: Interpretation of the indicator

Change in the indicator	Drivers: Direct (Choose one or more items)	Drivers: Indirect (Choose one or more items)	Which levers are being used to reverse negative trends and enable transformative change?	Responses that led to positive RLI trends	Comments
Negative	1. Land-use change 2. Climate change 3. 4. 5.	1. Human Population Dynamics and Trends 2. 3. 4. 5.	1. Cross-Sectoral Cooperation 2. Decision-making in the Context of Resilience and Uncertainty 3. Environmental Law and Implementation 4. 5.		More information could be found in THE SIXTH NATIONAL REPORT OF MONTENEGRO to the United Nations Convention on Biological Diversity prepared through the UNEP-GEF project “Support to Eligible Parties to Produce the Sixth National Report to the CBD – Montenegro”. Report is available on the following link: https://www.cbd.int/doc/nr/nr-06/me-nr-06-en.pdf

General comments

Red Lists and Red Books of flora and fauna are important instruments for the assessment of state and status of conservation of species, so Article 90 of the Law on Nature Protection has prescribed adoption of red list of wild plants, animals and fungi. The Red List is an indicator of biological diversity in a country, it indicates reduction of biodiversity, problems in the protection and species in need of protection programmes. However, annual monitoring programmes for biodiversity introduced in 2000. were commonly subject to significant financial constraints, and although the situation has improved over the past several years, the key problems in planning and implementation of different programmes include lack of basic data for certain areas, habitats and species, and insufficient research coverage due to financial constraints, but also to insufficient human resources (Fifth National Report to the CBD). These problems were the reason why full and reliable biodiversity status assessment was hindered and further efforts should be made to improve the data collection system aimed at assessing the status and creating prerequisites for drafting the red lists and books. Although it has been a legal obligation since 2008, the Red List of species has not yet been prepared. The exception is the Red List for Birds, the draft of which was completed at the end of 2021 (adopted in May 2022). The Red List index at the national level has not been calculated so far, for any group of organisms, because there are no comparative data adequate for the prescribed methodology. In regard to plants, there were previously submitted proposals (2008, 2010) with assessment of their status as a contribution to the preparation of a red book of flora for Montenegro, but this document is lacking at the moment.

SO4-3 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type

SO4-3.T1: National estimates of the average proportion of Terrestrial KBAs covered by protected areas (%)

Year	Protected Areas Coverage(%)	Lower Bound	Upper Bound	Comments
2000	17.66	17 .66	17 .66	
2001	17.66	17 .66	17 .66	
2002	17.66	17 .66	17 .66	
2003	17.66	17 .66	17 .66	
2004	17.66	17 .66	17 .66	
2005	17.66	17 .66	17 .66	
2006	17.66	17 .66	17 .66	
2007	17.66	17 .66	17 .66	
2008	17.66	17 .66	17 .66	
2009	17.66	17 .66	17 .66	
2010	17.66	17 .66	17 .66	
2011	17.66	17 .66	17 .66	
2012	17.66	17 .66	17 .66	
2013	17.66	17 .66	17 .66	
2014	17.66	17 .66	17 .66	
2015	17.66	17 .66	17 .66	
2016	17.66	17 .66	17 .66	
2017	17.66	17 .66	17 .66	
2018	17.66	17 .66	17 .66	
2019	25.91	25 .91	25 .91	
2020	25.91	25 .91	25 .91	

Qualitative assessment

SO4-3.T2: Interpretation of the indicator

Qualitative Assessment	Comment

General comments

There are no national data for this indicator.

SO4 Voluntary Targets

SO4-VT.T1

Target	Year	Level of application	Status of target achievement	Comments
Enable effective protection of the protected areas of nature, ecologically valuable habitats, forest, water and coastal ecosystems, protected species of flora and fauna, air and soil	2030	National	Ongoing	Significant progress was achieved with the declaration of new protected areas (Dragišnica and Komarnica Nature Parks, as well as the Cijevna Canyon Nature Monument) in 2017, so the share of the total territory that is nationally protected increased from 11.7% to 13.44% in 2020. Sustainable forest management was integrated into the national framework in 2008 as a principle. with the adoption of the National Forestry Policy, then through the Law on Forests from 2010. The Strategy with the plan of development of forest and forestry 2014 - 2023 is also based on this principle, while in practical application there are obvious weaknesses. A Rehabilitation Plan for degraded forests was also prepared. When it comes to mobilizing financial resources for sustainable forest management, significant challenges were recorded in the past period. Annual forest management programs do not include all the necessary measures, while the Plan for Rehabilitation of Degraded Forests was only partially implemented in 2020, and 2021. The main reason for this situation is the lack of identification of those who are needed budget funds for those activities, which negatively reflects on the sustainability of forest management.

Target	Year	Level of application	Status of target achievement	Comments
Improve data on biodiversity in accordance with needs for preservation of biological diversity and effective control of factors that threats to biodiversity: - by improving the monitoring of the state of biodiversity for the purpose of collection of data on the state of habitat and species populations, availability and up-to-date data and by creating a multi-year monitoring program of the state of biodiversity based on the previously performed inventory, including increasing budget allocations on that basis.	2030	National	Ongoing	There is a general lack of comprehensive data about the distribution and status of biodiversity in Montenegro that would form a basis for making informed decisions. Certain sites or species are relatively well explored thanks to work of specialized experts (e.g. wetland birds, fungi, some taxa of vascular plants), but data is still lacking for many others. Besides traditional research within the fields of taxonomy and systematics, which are mainly conducted through the activities of university experts, over the past years there is a growing intensity in number and scope of research aimed at completing the picture about ecological aspects of target species or habitats (e.g. area of distribution, population dynamics, demographic structure, level of pressures and degradation, and so on). Such data and information mainly come from the following sources: Regular monitoring The Agency for Environmental Protection conducts annual monitoring programme on the status of the environment, integral part of which is biodiversity monitoring, which includes inventory and assessment of status of all species and pressures in the researched areas. The areas under monitoring include national parks, parts of the coast (Velika plaža (the Great Beach), Ada Bojana, Ulcinj Solana (salt pans), Buljarica), some inland mountainous ecosystems of ecological importance and potential protected areas (Rumija, Kučke Mountains and Zeletin). When it comes to species, the monitoring covers birds, aquatic insects, malacofauna, herpetofauna, mammals, flora and fungi in certain sites (mainly national parks or future protected areas). Research on habitats The majority of new data on biodiversity collected in the period from 2014. and 2018. was collected through development of protection studies for protected areas by the Agency for the Environmental Protection (Gornjepoljski vir (2014), Nature Park Komovi (2015), Nature Park Piva (2015), Nature Park Dragišnica and Komarnica (2017), Monument of Nature Kanjon Cijevne (2017), potential Nature Park Sinjajevina, Orijen and Ulcinj Solana), as well as project activities implemented by non-governmental organizations and institutions in Montenegro. The main and most significant systematic activities related to explorations of biodiversity in Montenegro between 2016. and 2018. were implemented through project “Establishing NATURA 2000 network”. The project included mapping of habitats in compliance with the Habitat Directive in 9 KBA in Montenegro and GIS database was formed for target species. In particular, birds were explored through this project, identifying 33 potential important bird areas. The contribution to research of land habitats came from a project funded by Rufford Foundation. It included exploration of semi-natural grassland ecosystems as potential NATURA 2000 habitats in several sites (Dragalj, Gostilje Martinićko, Grahovsko polje, Kopilje, Radovče). The research of habitats was also improved by project “Mapping of key marine habitats in the Mediterranean and promoting their conservation through the establishment of Specially Protected Areas of Mediterranean Importance (SPAMI-(MEDKEYHABITATS project)” supported by UNEP MAP RAC SPA. Through this project, awareness was gained about the distribution of habitat types and species from the Annex to the Habitat Directive (primarily, distribution of Posedonia oceanica, corals and caves in the sites of Platamuni and Ratac). Research on species Public Enterprise for National Parks carries out continuous explorations of species within all five national parks. This includes the inventarisation of species of vascular plants, transect surveys and mapping of internationally or nationally important, endangered and endemic species, regular monitoring of birds (on Skadar Lake) and large mammals (Biogradska Gora and Durmitor). Apart from these activities, species are being studied and surveyed through projects and initiatives of other national institutions and the NGO sector.

Target	Year	Level of application	Status of target achievement	Comments
Development of the Red List and the Book of species	2020	National	Ongoing	The National Biodiversity Strategy of Montenegro envisages measures and activities (under operational target 16), such as drafting the red books, conducting the assessment of status of endangered species and preparation of action plans. But, the degree of achievement in this respect is limited. Taking into account that until now there have been no baseline studies on the populations status of endangered species, it is not possible to give any estimate of trends. In 2015, the Centre for Protection and Research of Birds of Montenegro published the List of bird fauna of Montenegro with a bibliography, which is the basis for Red List of birds. The list states there are 348 bird species present in Montenegro, and during the implementation of Natura 2000 project, field research revealed the presence of several more species, so now the number has grown to 352. Thus, in terms of species diversity around 65% of European ornithofauna is recorded in Montenegro. Out of the aforementioned number, 215 species belong to nesting birds, seven species are potential nesting birds, 109 species of birds registered in Montenegro are nesting migratory species, 106 species are considered resident (non-migratory), while 10 are considered extinct (e.g. Aegypius monachus). The appearance of 20 species, such as Tetrax tetrax, for example, is a historical fact because they have not been registered in the territory of Montenegro for the last 30 years. The main pressures on species in Montenegro have been and still are: - Uncontrolled urbanization, change in land use and tourism, especially in the coastal zone, as well as in several touristic centers in the mountain region (Žabljak, Kolašin, Plav-Gusinje). It is primarily reflected in the construction of touristic infrastructure, causing losses of natural habitats, and the accompanying pressures, such as disturbance and pollution by wastewater and solid waste. - Overkill – through hunting, fishing or harvesting (of medicinal herbs, non-timber forest products), as well as through persecution of species considered as vermin (birds of prey, wolf, fox, badger...). Efforts made to reduce this pressure include enhanced enforcement from relevant inspectorates, rangers in protected areas, and increasingly frequent public participation and involvement of civil sector in the monitoring of illegal activities. - Changes in land use practices - primarily by abandoning traditional forms of land use, such as grazing and haying, which used to maintain diversity of species and genes in grassland ecosystems. Measures to reduce this pressure are reflected in the support to traditional activities through agricultural and rural development policies, and in efforts to conserve genetic agro-biodiversity. Degradation of habitats through fragmentation is also an observed threat. Although it has been a legal obligation since 2008, the Red List of species has not yet been prepared. The exception is the Red List for Birds, the draft of which was completed at the end of 2021 (adopted in May 2022).
Proportion of protected of natural resources in the state (surface protected for preservation of biological diversity in total area of Montenegro) is at least 17% (Aichi task11).	2020	National	Ongoing	Development of legal and institutional framework for conservation of marine and terrestrial biodiversity is largely driven by the EU accession process. It has come significant progress in declaring protected areas: in 2020, 13.44% of the territory was protected based on national regulations, and from 2021, for the first time, 0.98% of coastal sea area. Management structures have not yet been established in the majority of protected areas, so protection is often of a declarative character (“paper parks”). Therefore, in parallel with proclaiming new protected areas, the need has been recognized to strengthen capacities for managing the existing protected areas.
Determine the boundaries of the natural assets and locations of priority habitats proposed for protection, primarily through the establishment of an ecological network NATURA 2000	2020	National	Ongoing	Protected areas and ecological network are the basis of adequate mechanisms, measures and binding decisions that should halt biodiversity loss and improve conservation. Therefore, one of the most complex activities in the future will be to establish the ecological network, areas of national and international significance (establishment of Natura 2000 network is at the same time a prerequisite for Montenegro’s accession to the EU). Activities on the identification of Natura 2000 areas continued after the completion of the IPA project (conducted in the period 2016-2019) according to the same methodology.

Target	Year	Level of application	Status of target achievement	Comments
Improving legal regulations for biodiversity and nature protection	2020	National	Ongoing	In the period since 2014, in order to strengthen legal framework and comply with the international standards, new Law on Nature Protection was adopted (Official Gazette of Montenegro, no. 54/16). This Law stipulated a range of implementation bylaws, prescribing in details and elaborating mechanisms for protected areas, species and habitats. The following bylaws were adopted in the period between 2014 and 2018: - Rulebook on the manner of maintaining records on habitat types Official Gazette of Montenegro, no. 22/14) - Rulebook on the manner of risk assessment for introduction of alien wild species of plants, animals and fungi and breeding specimen thereof (Official Gazette of Montenegro, no.28/14) - Rulebook on the manner of marking strictly protected and protected wild species of animals in captivity (Official Gazette of Montenegro, no. 28/14) 45 - Rulebook on the content, manner of creation and maintenance of cadastre of speleological facilities (Official Gazette of Montenegro, no. 22/14) - Rulebook on the conditions for trade and manner of handling protected wild species in transport (Official Gazette of Montenegro, no. 29/15) - Rulebook criteria for introduction of ecological network (Official Gazette of Montenegro, no. 45/17); - Rulebook on the content of appropriate assessment study (Official Gazette of Montenegro, no. 45/17); - Rulebook on detailed conditions for circulation, transit, trade and treatment of animals in transport (Official Gazette of Montenegro, no. 61/17). When it comes to the Law on Nature Protection (Official Gazette of Montenegro, no. 54/16), its revision was initiated to achieve functional application of certain sections of the law, as well as to integrate requirements from the EU Acquis and ratified international agreements in the area of nature protection. The new Law created a precondition for comprehensive nature protection in accordance with international standards. Specific matters related to nature protection are also regulated through a set of laws revised in the period 2014 – 2018, among which the following should be mentioned: - Law on National Parks (Official Gazette of Montenegro, no. 28/14), which prescribes rules within national parks, management measures, protection measures, control of activities, - Law on Forests (Official Gazette of Montenegro, no. 74/10 and 47/15), prescribing the rules and measures related to forest and forest habitats management, - Law on Game and Hunting (Official Gazette of Montenegro, no. 52/08 i 48/15) prescribes a list of hunting species, hunting seasons and rules of hunting, including measures to regulate hunting - Law on Marine Fishery and Mariculture (Official Gazette of Montenegro, no. 56/09 and 47/15) - Law on the Environmental Impact Assessment (Official Gazette of Montenegro, no. 75/18) Apart from the above, within the process of EU integrations, Montenegro has improved the normative and strategic framework for the environmental protection and harmonised it with international standards, especially the EU. In this period, 29 laws harmonised with the EU Acquis, 96 bylaws and more than 10 sectoral strategies in relation to the environment were endorsed. In July 2018, the Government of Montenegro adopted the Regulation on the manner and procedure for drafting, adjusting and monitoring the implementation of strategic documents. This regulation and related methodology are intended to achieve better mutual consistency 46 between national strategic documents, their compliance with relevant international and European policies, as well as harmonization of their content, manner of monitoring over the implementation and reporting.

Complementary information

Given measures are prescribed in National Strategy for Sustainable Development until 2030 with the Action Plan, which was adopted by the Government of Montenegro, in 2016, and National Biodiversity Strategy with the Action Plan. The National Strategy for Sustainable Development until 2030 defines solutions for sustainable management for four groups of resources - human, social, natural and economic - by establishing principles, strategic goals and measures/sub-measures for achieving sustainable development of Montenegro by 2030. Reporting on the implementation of NSSD 2030 has been done continuously since 2016, based on standardized forms with which the implemented activities are recorded and progress implementation of measures and sub-measures from the Action Plan of the Strategy, is evaluated.

SO5-1 Bilateral and multilateral public resources

Tier 1: Please provide information on the international public resources provided and received for the implementation of the Convention, including information on trends.

Trends in international bilateral and multilateral public resources provided

- ○ Up ↑
- ○ Stable ←→
- ○ Down ↓
- ◉ Unknown ∾

Trends in international bilateral and multilateral public resources received

- ○ Up ↑
- ◉ Stable ←→
- ○ Down ↓
- ○ Unknown ∾

The funds needed to protect the soil are realized in the form of budget allocated resources, grants, credit resources, the joint projects, etc. In the past period, the largest financial resources are withdrawn by the projects from the field of environmental protection in the management of natural resources. Programs that took place within the framework of international cooperation were realized through projects whose financing was provided by grants and donations from international financial funds or governments of developed countries. Certainly, the most important funds when it comes to environmental protection, represents the Global Environment Facility (GEF). According to the allocation of funds in GEF STAR 6, Montenegro has been financially supported with 4.245.219 USD in three areas: climate change, 2 million, 1.5 million of biodiversity and land degradation 745.219 USD. None of these funds allocated for land degradation was utilized, while 845.000 USD were utilized for climate change and 2,055,219 USD were utilized in the area of biodiversity. According to the allocation of funds in GEF STAR 7, Montenegro has been financially supported with 4.000.000 USD in three areas: climate change, 2 million, 1 million of biodiversity and land degradation 1.000.000 USD. None of these funds allocated for land degradation was utilized, while 4.000.000 USD were utilized in the area of biodiversity. According to the allocation of funds in GEF STAR 8, Montenegro has been financially supported with 6.293.028 USD in three areas: climate change, 1 million, 3 million of biodiversity and land degradation 2.293.028 USD. Those funds are still not utilized. The Government of Montenegro and the Ministry of Agriculture, Forestry and Water Management are implementing the project financed according to the loan agreement with the World Bank which has an aim to ensure institutional development and strengthening of agriculture in Montenegro (MIDAS) project. The project will, through a grant program, increase economic activity in rural areas, create jobs and complement private investment. Montenegro supported Drought Initiative, launched at the Conference of the UNCCD Parties, held in 2017, in Ordos, China, which was an impulse for further highlight of this issue and a first step in preparation of National Drought Plan. The National Drought Plan was developed with financial support of UNCCD (Global Mechanism) which was used for engagement of consultant. The process was coordinated by the Government of Montenegro, through the Ministry of Sustainable Development and Tourism, and in a close cooperation with Montenegro National Focal Point for UNCCD, representing Institute of Hydrometeorology and Seismology of Montenegro. Some of the measures identified for achieving LDN in Montenegro are recognized as potential LDN transformative projects. For Call for support for developing countries in the preparation of LDN transformative projects and programs (LDN TPP), the project idea was prepared - "Application of agro ecological measures for the purpose of sustainable land use, forest management, mitigation and achievement of goals (LDN)" and it received the support of the Global Mechanism of the UNCCD. The LDN TPP project is included in the National Program of Priority Activities within the framework of Montenegro's cooperation with the Green Climate Fund. For the preparation of the project Concept note, the UNCCD-Global Mechanism hired an international and national consultant. The approximate value of the project activities is 30.000.000 USD. The project for UNCCD 2022 Reporting has been approved and will be implemented through the Biotechnical Faculty as the implementing agency. The financial resources needed for the implementation of the project are provided by the Global Environmental Fund, in the amount of EUR 91,324.00. The United Nations Environment Program (UNEP) has been designated as the implementing agency. Other projects that can contribute to land protection: IPA Disaster Risk Assessment and Mapping - Montenegro has established a national database on damages from natural disasters - DESINVENTAR SENDAI. In 2018, a workshop was held on the topic of establishing a database on damages from natural disasters in Montenegro, and in 2019, the implementation of the Desinventar Sendai database on damages in Montenegro officially began. After a six-month activity of identification and collection of historical data on damage from disasters that hit Montenegro in the period between 2005 and 2018, for the first time all the information received from the municipal Commissions for damage assessment was combined and registered. After that, a form for collecting data on damage from disasters was created together with Methodological instructions for filling it out. The total value of the project is €3,000,000. The value of the project for Montenegro is €200,000. The project was implemented in the period 01.12.2016. - 30. 11. 2019. DIRECT project - Let's be resistant to disasters- Trainings for rescuers on topics related to protection and rescue in cases of fire, floods, earthquakes, etc., field rescue exercises, trainings on the topic of disaster risk reduction, preparation of evacuation plans for schools and local communities, evacuation exercises, campaign to inform the population about the risks of disaster, study visit to the EU, international conferences on disaster risk reduction, etc. Total value of the project was €736,257.34. The value of the project for Montenegro was €288,956.54. The project was implemented in the period 01.01.2017-31.03.2019. "Disasters know no borders" project- Strengthening the capacity of institutions and services from Montenegro and Albania that deal with protection and rescue and disaster risk reduction, with an emphasis on flood protection, as well as informing the population about flood risks. Purchase of equipment for protection and rescue from flooding and forecasting of hydro meteorological conditions. The value of the project for Montenegro €294,775.40. The project was implemented in the period 17.04.2018 – 16.01.2021. Project 3 WATCH OUT – Trilateral model of civil protection: Ways, instruments and challenges for our security-IPA INTERREG Program of cross-border cooperation between Italy, Montenegro and Albania- Equipment for fire protection and rescue, for measuring air pollution, for measuring water quality and for measuring water flow were acquired. Total value of the project €979,400. The value of the project for Montenegro €182,386. The project was implemented in the period 15.03.2018. - 14.06.2021. Thematic project "TO BE READY"-IPA INTERREG Program of cross-border cooperation between Italy, Montenegro and Albania-The goal of the project is to strengthen cross-border cooperation in the prevention of

risks from natural disasters and other accidents in order to improve safety in the program area and establish cooperation between regions and countries by adopting common strategies in the event of floods and fires. Total value of the project €5,893,686.53. The value of the project for Montenegro €1,216,499.96. The project was implemented in the period 01.04. 2019-30.06. 2022. Project Disaster Risk Management Capability Assessment- The assessment of disaster risk management capacity will contain information and data on technical, financial and administrative capacities in Montenegro for adequate risk assessment, risk management planning for prevention and preparedness, and measures for risk prevention and preparedness. Prevention and preparedness measures will be clearly identified in the aforementioned document together with information on competent authorities, participating authorities and their tasks, schedule of measures, financial and material means for planning measures and priorities of measures and a consolidated database on risks affecting Montenegro. The total value of the project is €687,700.00, of which the European Union finances €652,420.00 (95%). The project will be implemented in the period 1 April 2022- 30 September 2023. Capacity Building Project for Disaster Risk Reduction through the National Forest Fire Information System (NFFIS) and Ecosystem Based Disaster Risk Reduction (ECO-DRR)- The main activity of the project is the introduction of the national information system for forest fires and disaster risk reduction based on ecosystem solutions (ECO-DRR), which should strengthen the capacities of the Directorate for Protection and Rescue and the relevant state authorities of Montenegro for the prevention and reduction of forest fires, fires and some other natural disasters. Since this is a regional project, which includes Montenegro and Kosovo, the amount is €4,014,766 (it is calculated that the budget will be divided equally). The project will be implemented in the period 02.03.2021-02.03.2026. Multi-beneficiary IPA program related to flood protection and forest fire risk management - IPA FF- The general goal of the project is to strengthen regional cooperation and the exchange of best practices in the field of protection against floods and forest fires, to support the beneficiary countries of the program in harmonizing national legislation with the acquis of the EU and help in reaching EU standards and practices in the field of civil protection. The program consists of two components: • Component 1 (floods): improve the legal and institutional framework related to the EU Floods Directive ("EUFD") and institutional cooperation among all actors involved in the implementation of the EUFD; • Component 2 (forest fires): improve prevention, preparedness and capacity to respond to forest fires at national, regional and EU level. The budget of the program for Montenegro is 140,000EUR, 90,000EUR for the procurement of equipment for civil protection module for extinguishing forest fires from the ground and 50,000EUR for the organization of trainings, workshops and possibly exercises in Montenegro. The project will be implemented in the period 15 November 2020- 14 November 2023. ADAPT project: Nature-based Solutions in the Western Balkans-Increasing ecosystem and community resilience to climate change and environmental degradation by applying Nature-based solutions in the Western Balkans. The project is funded by the Swedish International Development Cooperation Agency (SIDA) and implemented by IUCN. It will run for three years (November 2019–October 2022) and aims to increase ecosystem and community resilience to climate change and environmental degradation in the Western Balkans. This regional umbrella initiative works with the six Western Balkan economies, regional and local partners. The goals of the project are: 1. Increasing the knowledge and awareness of nature-based disaster risk reduction solutions among decision makers, natural resource managers and local communities; 2. Integration of Nature-based solutions and equitable climate-smart planning into adaptation and disaster reduction policy; and 3. Implementation of Nature-based solutions for disaster risk reduction and their scale-up. The value of the project for the entire region of the Western Balkans is 2,480,000 euros. In order to identify medium and long-term needs for adaptation to climate change and to establish a system for coordinating the implementation of measures for adaptation to climate change, Montenegro has started drafting a National Adaptation Plan to Climate Change (NAP), within the project "Strengthening the capacity of Montenegro in the field of integrating climate change risk into the planning program", financed by Green Climate Fund (GCF). The GCF approved project funding to improve Montenegro's institutional capacity for long-term adaptation planning by (i) improving the institutional framework for coordination and institutional capacity building, (ii) improving climate information and identifying potential responses / adaptation measures, and (iii) identifying financial requirements and resources to finance adaptation investments. This project will help Montenegro lay the basis for systematic and iterative adaptation planning by identifying climate risks and adaptation opportunities to establish a well-defined planning process that will lead to improved resilience growth in four key sectors (agriculture, water, tourism and health). This strategic approach will, among other things, strengthen Montenegro's position vis-à-vis its development partners, international funding sources and the private sector. CCAWB - Adaptation to Climate Change in Cross-border Flood Risk Management in the Western Balkans The German Society for International Cooperation (GIZ) supports international cooperation in the Drim basin in the field of floods, and in this sense an initiative was launched with local partners to systematically develop capacities in the field of flood forecasting, cross-border risk assessment and development of flood risk reduction measures. The beneficiaries of the Project are the countries in the Drim/Bojana river basin: Albania, Montenegro, Kosovo and Macedonia. - The project was implemented in three phases: - Phase I- established regional flood forecasting system for the Drim/Drin-Bojana/Buna catchment area in the hydro meteorological institutes of the beneficiary countries; - Phase II - preliminary flood risk assessment for the Drim/Drin-Bojana/Buna catchment area prepared and defined cross-border flood risk management measures; - Phase III - Hazard and flood risk maps for selected pilot areas in the Drim/Drin-Bojana/Buna catchment area and a user guide for creating maps prepared. The project was implemented in the period from 2012 to March 2022. DRIM FRM - Integrated climate resilient transboundary flood risk management in the Drim River basin in the Western Balkans On March 22, 2019, the Board of the Adaptation Fund approved this Project for Montenegro, Albania, North Macedonia and Kosovo. The project coordinator is the United Nations Development Program (UNDP), and the project partner is the Global Water Partnership (GWP). The most important component of the project includes structural measures to reduce the risk of flooding. At the national level, the structural measures include infrastructure works for priority sections on the Bojana River with a total length of 13 km. The existing and upgraded embankment system will primarily serve for flood defense, with the possibility of using the embankment for access to agricultural land, as well as in the function of tourism development. Start/end of implementation: 2019/2024. Digitalizing Municipal Land Management (GIZ) Practice has shown that agricultural production on land leased by the Government/municipality to farmers is poorly monitored and not systematically managed. The result is mismanagement of agricultural land with inadequate cropping, excessive fertilization, reduced productivity rates, soil degradation and erosion. Since there was not enough data on land use until now, farmers who lease land for a certain period of time are not able to follow long-term agricultural management procedures. And the inspection, which is carried out by the Ministry of Agriculture, lacks available data that allow a correct assessment of current land use. The result of all this is that due to the lack of proper land management and comprehensive monitoring, the capacity of agricultural production is realized less than its real potential, and at the same time the ecological balance of the land is disturbed, which leads to long-term degradation of agricultural property. Expected results: • effective procedures for land management in selected pilot local governments in Serbia, B&H and Montenegro; • improved data collection and monitoring of agricultural land use in selected local governments; • increased satisfaction and the number of tenants (users) of agricultural land; • regional exchange of experiences in agricultural land management between relevant national actors in order to establish a sustainable management system for this type of land and contribution to the digitization process in the entire region. Start/end of implementation: December 2019 - October 2022 Strengthening of the Montenegrin Nationally Determined Contribution (NDC) and adaptation actions within the framework of transparency through the initiative for capacity building for transparency - CBIT. The project focuses on strengthening the institutional capacities that are responsible for policies and measures in the field of mitigation and adaptation, but also those related to the collection of data for the GHG inventory and the preparation of national reports on the inventory.

Also, a significant part of the project will be dedicated to greater transparency and efficient flow of data, as well as establishment of a system for monitoring, reporting and data verification. The project is financed by the Global Environment Facility (GEF). The implementation of the project began in February 2022, and completion is planned by the end of 2024. National Adaptation Plan-The value of the project is USD 1,800,000 and is financed by the Green Climate Fund (GCF). The realization of the project is planned until 2024. National Energy and Climate Plan (NECP). The goal of the project is to strengthen institutional capacities for integrated planning in the areas of climate change and energy and to support the process of drafting the first National Energy and Climate Plan in Montenegro. For the development of the plan, support was received within the project "Development of capacities for climate policy in the countries of Southeastern and Eastern Europe, the South Caucasus and Central Asia - Phase III", and GIZ is responsible for its implementation. The value of the project is 100,000 eur (107 000$).

In Montenegro, there are a number of institutions that deal with land from different aspects. Administrative capacities in different institutions are rather low and inter-institutional coordination needs to be strengthened in order to establish effective sustainable soil management. Main ministries covering this issue are Ministry of Ecology, Spatial Planning and Urbanism from the aspect of spatial planning and implementation of UN Convention on Combating Land Degradation, and Ministry of Agriculture, Forestry and Water Management, responsible for development policy, protection, exploitation and improvement of agricultural land; sustainable management of agricultural resources; development policy in the field of forestry; system solutions for forest and forest land management and protection. Within Ministry of Ecology, Spatial Planning and Urbanism, there is Directorate for EU integration, international cooperation and climate change, under which authority is cooperation with the Global Environment Facility (GEF), Green Climate Fund (GCF), Adaptation Fund and other relevant environmental funds and their secretariats. Cooperation includes political and operational level, including proposing, developing and implementing projects of importance for Montenegro in the field of environment and climate change, monitoring the implementation of obligations in the context of membership in relevant United nations bodies and other international organizations.

Tier 2: Table 1 Financial resources provided and received

		Total Amount USD	
Provided / Received	Year	Committed	Disbursed / Received
Provided	2016	Committed 0	Disbursed 0
Provided	2017	Committed 0	Disbursed 0
Provided	2018	Committed 0	Disbursed 0
Provided	2019	Committed 0	Disbursed 0
Received	2016	Committed 3 317 .48	Received 160 024 .46
Received	2017	Committed 0 .00	Received 875 639 .00
Received	2018	Committed 0 .00	Received 410 716 .00
Received	2019	Committed 49 939 .08	Received 49 939 .08
Total resources provided:		0	0
Total resources received:		53 256 .56	1 496 318 .54

Documentation box

	Explanation
Year	1.2016-2019 2.2017-2019 3.2018-2021 4.2018-2021 5.2019-2022 6.2022-2023 7.2020-2023 8.2022-2024 9.2023 10.2024 11.2024
Recipient / Provider	1.R 2.R 3.R 4.R 5.R 6.R 7.R 8.R 9.R 10.R 11.R

	Explanation
Title of project, programme, activity or other	1.IPA Disaster Risk Assessment and Mapping 2.DIRECT project - Let's be resistant to disasters 3."Disasters know no borders" project- Strengthening the capacity of institutions and services from Montenegro and Albania that deal with protection and rescue and disaster risk reduction, with an emphasis on flood protection, as well as informing the population about flood risks 4.Project 3 WATCH OUT – Trilateral model of civil protection: Ways, instruments and challenges for our security-IPA INTERREG Program of cross-border cooperation between Italy, Montenegro and Albania 5.Thematic project "TO BE READY"-IPA INTERREG Program of cross-border cooperation between Italy, Montenegro and Albania 6.Project Disaster Risk Management Capability Assessment 7.Multi-beneficiary IPA program related to flood protection and forest fire risk management - IPA FF- 8.Strengthening of the Montenegrin Nationally Determined Contribution (NDC) and adaptation actions within the framework of transparency through the initiative for capacity building for transparency - CBIT 9.Biennial Transparency Report (BTR) and Fourth National Communication (FNC) 10.National Adaptation Plan 11.National Energy and Climate Plan (NECP)
Total Amount USD	1.212780 $ 2.307420 $ 3.313611 $ 4.192976 $ 5.1294233 $ 6.731644 $ 7. 148 946 $ 8.1.100.000 $ 9.517 000$ 10.1 800 000 $ 11.107 000$
Sector	1.other (civil protection) 2.other (civil protection) 3.other (civil protection) 4.other (civil protection and water quality) 5.other (civil protection) 6. other (civil protection) 7. other (civil protection) 8.climate change 9.climate change 10.climate change 11.climate change
Capacity Building	1.yes 2.yes 3.yes 4.no 5.no 6.yes 7.yes 8.yes 9.yes 10.yes 11.yes
Technology Transfer	3.Purchase of equipment for protection and rescue from flooding and forecasting of hydro meteorological conditions. 4.Equipment for fire protection and rescue, for measuring air pollution, for measuring water quality and for measuring water flow were acquired. 5.Acquired a multifunctional robotic system 6.No 7.yes 8.No 9.No 10.No 11.No
Gender Equality	1.Yes 2.No 3.No 4.No 5.No 6.No 7.No 8.No 9.No
Channel	1.multilateral 2.multilateral 3.bilateral 4.multilateral 5.multilateral 6.Bilateral 7.Bilateral 8.bilateral 9.bilateral 10.bilateral 11.bilateral
Type of flow	
Financial Instrument	1.grant 2.grant 3.grant 4.grant 5.grant 6.grant 7.Grant 8.grant 9.grant 10.grant 11.grant
Type of support	1.indirectly 2.indirectly 3.indirectly 4.indirectly 5.indirectly 6.indirectly 7.indirectly 8.indirectly 9.indirectly 10.indirectly 11.indirectly
Amount mobilised through public interventions	
Additional Information	1.The consortium that implemented the program consisted of: Swedish Agency for Emergency Situations, Department for Civil Protection of the Republic of Italy, Administration of the Republic of Slovenia for Civil Protection and Humanitarian Aid, Ministry of the Interior of the Republic of Croatia - Civil Protection Directorate and the Italian Research Foundation for Environmental Monitoring Research Foundation). 2.Consortium: FORS Montenegro (leading partner), Directorate for Protection and Rescue of the Ministry of Interior of Montenegro, Fire and Rescue Service of Kranj Municipality from Slovenia, Fire and Rescue Brigade of the Moravian-Silesian Region and Association of Firefighters from the Czech Republic. 3.The project was implemented by: FORS Montenegro, Directorate for Protection and Rescue and Skadar Prefecture. 4.IPA INTERREG Program of cross-border cooperation between Italy, Montenegro and Albania. Consortium: Department for Civil Protection of the Pula Region (leading partner), University of Bari - Department of Agriculture and Environment, Regional Council of Lezha, non-governmental organizations "Research and Cooperation" and "Partnership for Development" and Directorate for Protection and Rescue of the Ministry of Interior Montenegro 5.Consortium: Region of Molise (lead partner), Civil Protection Department of Pula Region, Directorate for Protection and Rescue of the Ministry of Interior of Montenegro, Ministry of Defense of the Republic of Albania, while the Ministry of Internal Affairs of the Republic of Albania is an associated partner 8.The project focuses on strengthening the institutional capacities that are responsible for policies and measures in the field of mitigation and adaptation, but also those related to the collection of data for the GHG inventory and the preparation of national reports on the inventory. Also, a significant part of the project will be dedicated to greater transparency and efficient flow of data, as well as establishing a system for monitoring, reporting and data verification. The project is financed by the Global Environment Facility (GEF). 9.With this project, the Government of Montenegro will be assisted in the preparation and submission of its Fourth National Communication and the first biennial report on transparency for fulfilling the obligations from the United Nations Framework Convention on Climate Change (UNFCCC). 11.The goal of the project is to strengthen institutional capacities for integrated planning in the areas of climate change and energy and to support the process of drafting the first National Energy and Climate Plan in Montenegro.

General comments

Total amount committed: 3 209 202,56 $ Total amount received: 4 548 982, 54 $

SO5-2 Domestic public resources

Tier 1: Please provide information on the domestic public expenditures, including subsidies, and revenues, including taxes, directly and indirectly related to the implementation of the Convention, including information on trends.

Trends in domestic public expenditures and national level financing for activities relevant to the implementation of the Convention

- ○ Up ↑
- ◉ Stable ←→
- ○ Down ↓
- ○ Unknown ∾

Trends in domestic public revenues from activities related to the implementation of the Convention

- ○ Up ↑
- ○ Stable ←→
- ○ Down ↓
- ◉ Unknown ∾

No system for monitoring the funding of land protection has been established. The allocations for land protection are not clearly indicated in the budgets, and since Montenegro does not have a clear distinction between the budget and local self-government units when it comes to contributions to land protection, it is difficult to determine the trend of growth in regard to public funding for land protection. It mainly relies on projects and support from international funds and loans. Institutions in Montenegro that have a role in designing and implementing land management policies are formally led by two ministries: Ministry of Ecology, Spatial Planning and Urbanism and Ministry of Agriculture, Forestry and Water Management. Within the Ministry of Ecology, Spatial Planning and Urbanism, there is Division for Air, Water and Soil under which authority is issue of land protection. The Division for Air, Water and Soil is responsible, among other things, for proposing, monitoring and guiding policy in the areas of air, water, soil, noise, ionizing and non-ionizing radiation and radioactive materials. This authority is exercised by drafting strategies and other development documents, programs, action plans and projects, drafting and proposing laws, by-laws and other regulations from the aforementioned areas. Also, it plays a key role in harmonizing with EU regulations in the mentioned areas. The Division is in charge of monitoring the best international practice in these areas and, accordingly, proposing measures, establishing a system of protection and preservation of air, water and soil quality and monitoring the state of pollution, as well as improving the system of indicators for systematic monitoring and participation in the monitoring of quality, changes and conditions of air, water and soil in the territory of Montenegro. Implementation of UN Convention on Combating Desertification is within the competence of above-mentioned Ministry, which is the focal point for cooperation with UNCCD. Also, under the authority of Ministry of Ecology, Spatial Planning and Urbanism, is the Environmental Protection Agency (EPA). The Environmental Protection Agency performs the tasks of environmental monitoring, including land monitoring, analysis of the state of the environment, and the processes and events which can damage the environment, proposing and taking measures for their prevention and elimination, reporting on the state of the environment, etc. Continuous control and environmental monitoring are the obligations defined by the Law on Environment ("Off. Gazette of Montenegro", No.52/16). The Government of Montenegro adopts Program of environmental monitoring on an annual basis. Realization of the Program of environmental monitoring is one of the main tasks in the field of environmental protection, because the results of the monitoring are the basis for evaluation of the overall environmental situation in Montenegro, as well as for defining the recommendations in the environmental policy planning. Based on the monitoring data, Environment Protection Agency prepares Information on the state of the environment, which is adopted by the Government of Montenegro, annually. Program of environmental monitoring includes seven programs: air quality, monitoring of pollen in the air, the content of hazardous and harmful substances in soil, the state of coastal ecosystem, the state of biodiversity, environmental noise and radioactivity. Program of environmental monitoring is implemented in accordance with EU guidelines in this area, i.e. with the recommendations of the European Agency for the Environment (EEA) and standards of the European Network for Information and Observation (EIONET). The data obtained through the implementation of this Program are used for administration and reporting in accordance with these international institutions, as well as to the EU Statistical Office (Eurostat) and the Statistical Division of the UN (UNSD). Monitoring of soil conditions and examination of the content of hazardous and harmful substances in the soil is carried out in accordance with the Law on the Environment ("Official Gazette of Montenegro", No. 052/16), the Law on Agricultural Land ("Official Gazette of the Republic of Montenegro", No. 015/92, 059/92, 027/94, "Official Gazette of Montenegro", no. 073/10, 032/11) and the Rulebook on Permitted Concentrations of Harmful and Hazardous Substances in Soil and Methods for Their Examination ("Official Gazette RCG", No. 018/97), and it also complies with the requirements of the European Environmental Agency. The goal of monitoring is to determine the content of hazardous and harmful substances in the soil, in the immediate vicinity of landfills, roads, industrial zones, as well as in populated areas (including and children's playgrounds). In order to adequately assess the quality of the soil, monitoring of dangerous and harmful inorganic substances, toxic and carcinogenic organic substances is carried out. During 2022, this program is implemented in 7 municipalities, at 12 measuring points, with a total of 12 samples. Funds for implementation of the Program are provided from the State budget every year. Year Amount 2022 5.000 2020 30.000 2018 29.000 2017 29000 In the Ministry of Agriculture, Forestry and Water Management, there are departments of agriculture and forestry. Ministry of Agriculture, Forestry and Water Management, among other issues, creates policy regarding protection, utilization and improvement of agricultural land, sustainable management of resources, development policy in the field of forestry, system solutions for the management of forests and forest lands and their protection, etc. According to Article 6 of the Law on Agriculture and Rural Development ("Official Gazette of Montenegro", No. 56/09, 34/14 and 1/15), Article 37 of the Law on Marine Fisheries and Mari culture ("Official Gazette of Montenegro", No. 56/09 and 47/15) and referring to annual Law on Budget of Montenegro, the Government of Montenegro annually adopts Regulation on conditions, manner and dynamics of implementation of agricultural policy for – Agro budget. This Regulation defines the conditions, manner and dynamic of implementation of agricultural policy, rural development policy, activities of public interest, transfers and other measures. Table in Tier 2 shows some of investments defined in Agro budget, adopted by Government.

Funds provided in the Agro budget are allocated to Ministry responsible for agriculture and rural development and the authority responsible

for food safety, veterinary and phytosanitary affairs. Some of activities in agro budget directly or indirectly contribute to land protection and thus to the effective implementation of Convention. Most of the defined activities are implemented in joint cooperation of Government and private sector. In some cases, Government finances activities in amount of 100% -grants, and for some other activities Government contribution is 50%, while private sector should ensure the remaining 50%. For example, for the activity SUPPORT FOR THE DEVELOPMENT OF VINE GROWING AND WINERY, Agricultural holding submits a request to the Ministry in accordance with the Public Call. The request is submitted exclusively on the form, which is integral part of the Public Call, and can be downloaded at the Ministry's website. Support is realized after administrative and on-site control. Specific criteria for support are defined by the Public Call. The maximum acceptable investment is €10,000, and the maximum acceptable amount of costs is up to 50% of the value of the investment, or up to 60% of the value of the investment for planting of autochthonous grape varieties. The maximum amount of support is €5,000 per household. To the moment of disbursement of funds, the newly raised must be updated in the Agricultural Register and in the Winery Register. If the total amount of support, based on the request for support allocation, exceeds the planned annual amount, the Ministry will stop further implementation of the measure, inform agricultural producers and/or proportionally reduce the amount of support funds in relation to each individual request for support.

Tier 2: Table 2 Domestic public resources

	Year	Amounts	Additional Information
Government expenditures			
Directly related to combat DLDD			
Indirectly related to combat DLDD			
Subsidies			
Subsidies related to combat DLDD			
SUPPORT FOR THE DEVELOPMENT OF VINE GROWING AND WINERY	2022	150 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €10,000 with budget support of up to 60% of the value of the eligible investment, i.e. up to €6,000. Private sector contribution 40%
SUPPORT FOR THE ESTABLISHMENT AND MODERNIZATION/EQUIPMENT OF PRODUCTION OF FRUIT	2022	250 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €10,000 with budget support of up to 60% of the value of the eligible investment, i.e. up to €6,000.
SUPPORT FOR PERENNIAL PLANTATIONS OF MEDICAL AND AROMATIC PLANTS	2022	40 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €10,000 with budget support of up to 60% of the value of the eligible investment, i.e. up to €6,000.
THE PRESERVATION OF GENETIC RESOURCES IN AGRICULTURE	2022	80 000	Provided in Agro budget, adopted by Government of MNE. Premiums per head for genetic resources in animal husbandry Genetic resources in crop production
ORGANIC AGRICULTURE	2022	450 000	Provided in Agro budget, adopted by Government of MNE Support is given to producers who produce organic products in accordance with the Law on Organic Production ("Official Gazette of Montenegro", 56/13). Support is provided per hectare of production area, bee colony, poultry and conditional head in animal husbandry. Support is provided for the control and certification of organic production
SUSTAINABLE USE OF MOUNTAIN PASTURES	2022	270 000	Provided in Agro budget, adopted by Government of MNE Support is given to agricultural holdings that keep livestock (their own and livestock taken to the dairy) on Montenegrin katuns for at least three months in the calendar year.
INVESTMENT SUPPORT FOR THE CONSTRUCTION OF WELLS AND BISTIERY	2022	180 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment for support amounts to €7,000 with budget support of up to 50% of the value of the eligible investment, i.e. up to €3,500. In addition to the amount of support of 50%, an additional 10%, i.e. a total of 60% of support from the amount of eligible investment for support can be obtained by applicants who perform agricultural activity as their only or main occupation
SUPPORT FOR WOMEN'S ENTREPRENEURSHIP IN AGRICULTURE	2022	100 000	Provided in Agro budget, adopted by Government of MNE Support is granted in all segments of agricultural production and diversification in rural areas. The maximum acceptable funds are €10,000. Budget support is up to 70% values of the approved business plan.
Total expenditures / total per year			

	Year	Amounts	Additional Information
SUPPORT FOR INTRODUCING INNOVATIONS IN THE AGRICULTURAL SECTOR	2022	200 000	Provided in Agro budget, adopted by Government of MNE Support is provided for the introduction of innovative technologies, i.e. activities in agricultural production, the introduction of smart technologies to combat climate change, the introduction of new products or services, and the implementation of other relevant activities that result in improving the competitiveness of agricultural production. The maximum acceptable investment is €10,000 with budget support of up to 80% of the value of the eligible investment, i.e. up to €8,000.
SUPPORT FOR THE START-UP AND DEVELOPMENT OF YOUTH BUSINESSES AGRICULTURIST	2022	250 000	Provided in Agro budget, adopted by Government of MNE The share of budget funds for support is 100%, i.e. up to €10,000 per approved business plan and per young farmer.
VILLAGE DEVELOPMENT AND CONSTRUCTION OF INFRASTRUCTURE	2022	224 000	Provided in Agro budget, adopted by Government of MNE Support is provided for the improvement of rural infrastructure, and in particular for: • construction of new and adaptation and reconstruction of existing infrastructure (road, water, electricity and other infrastructure) to individual or groups of rural households, access to katuns, infrastructure within the farm;
SUPPORT FOR THE DEVELOPMENT OF VINE GROWING AND WINERY	2021	120 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €10,000 with budget support of up to 50% of the value of acceptable investments, ie up to €5,000.
SUPPORT FOR THE ESTABLISHMENT AND MODERNIZATION/EQUIPMENT OF PRODUCTION OF FRUIT	2021	230 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €10,000 with budget support of up to 50% of the value of acceptable investments, ie up to €5,000.
SUPPORT FOR THE RAISING OF PERENNIAL PLANTS OF MEDICINAL I AROMATIC PLANTS	2021	40 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €10,000 with budget support of up to 50% of the value of acceptable investments, ie up to €5,000.
INVESTMENT SUPPORT FOR THE CONSTRUCTION OF WELLS AND BISTIERY	2021	180 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €6,000 with budget support of up to 50% of the value of acceptable investments, ie up to €3,000.
SUPPORT FOR THE START-UP AND DEVELOPMENT OF YOUTH BUSINESSES AGRICULTURIST	2021	500 000	Provided in Agro budget, adopted by Government of MNE The share of budget funds for support is 100%, i.e. up to €10,000 per approved business plan and one young farmer at a time.
PRESERVATION OF INDIGENOUS GENETIC RESOURCES IN AGRICULTURE	2021	60 000	Provided in Agro budget, adopted by Government of MNE Premiums per head for genetic resources in animal husbandry Genetic resources in crop production
SUPPORT TO ORGANIC PRODUCTION	2021	450 000	Provided in Agro budget, adopted by Government of MNE Support is given to producers who produce organic products in accordance with the Law on Organic Production ("Official Gazette of Montenegro", 56/13). Support is provided per hectare of production area, bee colony, poultry and conditional head in animal husbandry. Support is provided for the control and certification of organic production
SUSTAINABLE USE OF MOUNTAIN PASTURES	2021	250 000	Provided in Agro budget, adopted by Government of MNE Support is given to agricultural holdings that keep livestock (their own and livestock taken to the dairy) on Montenegrin katuns for at least three months in the calendar year.
VILLAGE DEVELOPMENT AND CONSTRUCTION OF INFRASTRUCTURE	2021	1 130 000	Provided in Agro budget, adopted by Government of MNE Support is provided for the improvement of rural infrastructure, and in particular for: • construction of new and adaptation and reconstruction of existing infrastructure (road, water, electricity and other infrastructure) to individual or groups of rural households, access to katuns, infrastructure within the farm;
Total expenditures / total per year			

	Year	Amounts	Additional Information
SUPPORT FOR THE DEVELOPMENT OF VINE GROWING AND WINERY	2020	120 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €10,000 with budget support of up to 60% of the value of the eligible investment, i.e. up to €6,000.
SUPPORT FOR THE ESTABLISHMENT AND MODERNIZATION/EQUIPMENT OF PRODUCTION OF FRUIT	2020	190 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €10,000 with budget support of up to 50% of the value of the eligible investment, i.e. up to €5,000.
SUPPORT FOR THE RAISING OF PERENNIAL PLANTS OF MEDICINAL I AROMATIC PLANTS	2020	40 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €10,000 with budget support of up to 50% of the value of the eligible investment, i.e. up to €5,000.
INVESTMENT SUPPORT FOR THE CONSTRUCTION OF WELLS AND BISTIERY	2020	250 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €6,000 with budget support of up to 50% of the value of acceptable investments, ie up to €3,000.
SUPPORT FOR THE START-UP AND DEVELOPMENT OF YOUTH BUSINESSES AGRICULTURIST	2020	400 000	Provided in Agro budget, adopted by Government of MNE The share of budget funds for support is 100%, i.e. up to €10,000 per approved business plan and one young farmer at a time.
PRESERVATION OF INDIGENOUS GENETIC RESOURCES IN AGRICULTURE	2020	40 000	Provided in Agro budget, adopted by Government of MNE Premiums per head for genetic resources in animal husbandry Genetic resources in crop production
SUPPORT TO ORGANIC PRODUCTION	2020	400 000	Provided in Agro budget, adopted by Government of MNE Support is given to producers who produce organic products in accordance with the Law on Organic Production ("Official Gazette of Montenegro", 56/13). Support is provided per hectare of production area, bee colony, poultry and conditional head in animal husbandry. Support is provided for the control and certification of organic production
SUSTAINABLE USE OF MOUNTAIN PASTURES	2020	250 000	Provided in Agro budget, adopted by Government of MNE Support is given to agricultural holdings that keep livestock (their own and livestock taken to the dairy) on Montenegrin katuns for at least three months in the calendar year.
VILLAGE DEVELOPMENT AND CONSTRUCTION OF INFRASTRUCTURE	2020	738 000	Provided in Agro budget, adopted by Government of MNE Support is provided for the improvement of rural infrastructure, and in particular for: • construction of new and adaptation and reconstruction of existing infrastructure (road, water, electricity and other infrastructure) to individual or groups of rural households, access to katuns, infrastructure within the farm;
SUPPORT FOR THE DEVELOPMENT OF VINE GROWING AND WINERY	2019	120 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €10,000 with budget support of up to 60% of the value of the eligible investment, i.e. up to €6,000.
SUPPORT FOR THE ESTABLISHMENT AND MODERNIZATION/EQUIPMENT OF PRODUCTION OF FRUIT	2019	210 000	Provided in Agro budget, adopted by Government of MNE Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €10,000 with budget support of up to 50% of the value of the eligible investment, i.e. up to €5,000.
SUPPORT FOR THE RAISING OF PERENNIAL PLANTS OF MEDICINAL I AROMATIC PLANTS	2019	80 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment is €10,000 with budget support of up to 50% of the value of the eligible investment, i.e. up to €5,000.
INVESTMENT SUPPORT FOR THE CONSTRUCTION OF WELLS AND BISTIERY	2019	320 000	Provided in Agro budget, adopted by Government of MNE The maximum acceptable investment for support amounts to €7,000 with budget support of up to 50% of the value of the eligible investment, i.e. up to €3,500. In addition to the amount of support of 50%, an additional 10%, i.e. a total of 60% of support from the amount of eligible investment for support can be obtained by applicants who perform agricultural activity as their only or main occupation
Total expenditures / total per year			

	Year	Amounts	Additional Information
SUPPORT FOR THE START-UP AND DEVELOPMENT OF YOUTH BUSINESSES AGRICULTURIST	2019	445 000	Provided in Agro budget, adopted by Government of MNE The share of budget funds for support is 100%, i.e. up to €10,000 per approved business plan and per young farmer.
PRESERVATION OF INDIGENOUS GENETIC RESOURCES IN AGRICULTURE	2019	40 000	Provided in Agro budget, adopted by Government of MNE Premiums per head for genetic resources in animal husbandry Genetic resources in crop production
SUPPORT TO ORGANIC PRODUCTION	2019	400 000	Provided in Agro budget, adopted by Government of MNE Support is given to producers who produce organic products in accordance with the Law on Organic Production ("Official Gazette of Montenegro", 56/13). Support is provided per hectare of production area, bee colony, poultry and conditional head in animal husbandry. Support is provided for the control and certification of organic production
SUSTAINABLE USE OF MOUNTAIN PASTURES	2019	220 000	Provided in Agro budget, adopted by Government of MNE Support is given to agricultural holdings that keep livestock (their own and livestock taken to the dairy) on Montenegrin katuns for at least three months in the calendar year.
VILLAGE DEVELOPMENT AND CONSTRUCTION OF INFRASTRUCTURE	2019	720 000	Provided in Agro budget, adopted by Government of MNE Support is provided for the improvement of rural infrastructure, and in particular for: • construction of new and adaptation and reconstruction of existing infrastructure (road, water, electricity and other infrastructure) to individual or groups of rural households, access to katuns, infrastructure within the farm;
Total expenditures / total per year			

	Year	Amounts	Additional Information
Government revenues			
Environmental taxes for the conservation of land resources and taxes related to combat DLDD			
Total revenues / total per year			

Documentation box

	Explanation
Government expenditures	
Subsidies	According to Article 6 of the Law on Agriculture and Rural Development ("Official Gazette of Montenegro", No. 56/09, 34/14 and 1/15), Article 37 of the Law on Marine Fisheries and Mari culture ("Official Gazette of Montenegro", No. 56/09 and 47/15) and referring to annual Law on Budget of Montenegro, the Government of Montenegro annually adopts Regulation on conditions, manner and dynamics of implementation of agricultural policy for – Agro budget. This Regulation defines the conditions, manner and dynamic of implementation of agricultural policy, rural development policy, activities of public interest, transfers and other measures. Above presented activities shows some of investments defined in Agro budget, adopted by Government of Montenegro.
Government revenues	
Domestic resources directly or indirectly related to combat DLDD	

Has your country set a target for increasing and mobilizing domestic resources for the implementation of the Convention?

- ○ Yes
- ◉ No

General comments

Program for Development of Agriculture and Rural areas of Montenegro within IPARD 2014-2020-incentive measures for women from rural

areas were implemented, in terms of modernization of holdings, strengthening of production competitiveness, increasing the productivity of holdings, reducing costs, increasing product quality, hygiene and food safety. Agro budget for 2020 and Agro budget for 2022 provide special support to women as holders of agricultural holdings: Support to upgrading of the quality of fresh milk, some additional funds were available for women who apply for subsidies from national budget.

SO5-3 International and domestic private resources

Tier 1: Please provide information on the international and domestic private resources mobilized by the private sector of your country for the implementation of the Convention, including information on trends.

Trends in international private resources

- ○ Up ↑
- ○ Stable ←→
- ○ Down ↓
- ◉ Unknown ∾

Trends in domestic private resources

- ○ Up ↑
- ○ Stable ←→
- ○ Down ↓
- ◉ Unknown ∾

Example: Good soil management practice is conducted by Green Room S.r.l Company, established for construction works and restoration of barren lands. Green Room S.r.l Company is a construction company working mainly in and around the capital city of Podgorica. This Karst area face severe drought periods and dry spells and has a lack in land resources. The dominant soil types in this area are Lithosols and Kalkomelanosols, according to national soil classification, which could roughly correspond to Nudilithic and Lithic Leptosols, or rarely Leptic Phaeozems, according to WRB. The terrain is characterized with the presence of rock outcrops (hard limestones) and mostly shallow soil cover. Moreover, soil depth is not homogenous and it has non-uniform depth. From one side, the exposures of bedrock limit the use of modern mechanized agricultural equipment, whereas on the other side where fine soil material covers the ground, effective soil depth for root penetration is unknown. Therefore, experience of Green Room and its current activities has resulted in measures to combat land degradation by increasing effective soil depth in the Karst area. Green Room is using its facilities, trucks and other construction and agricultural equipment, to transport material which is often neglected in construction works, and deposited elsewhere, to locations where this material is lacking (photos attached). Moreover, the activities did not stop on simple increment of soil depth. New pomegranate nursery was created in the village Kokoti, with an idea to enhance and enlarge the production. This production site presents an ideal example of application of reclamation measures on low productive soils. Nursery was designed on very low productive and shallow calcareous soils with many exposed bedrocks on the top of the ground. The owner of the pomegranate nursery transports residual earthy material from construction site in Podgorica. Earthy material was not deposited elsewhere, but used to overlay the ground. By this measure, soil depth was increased and organized production on certain area was initiated. This measure has huge long-term environmental, social and economic benefit. These kinds of measures should become more familiar to broader community and decision makers and mainstreamed into national policies.

As explained in SO 5-2, funds provided in the Agro budget are allocated to Ministry responsible for agriculture and rural development and the authority responsible for food safety, veterinary and phytosanitary affairs. Through the agricultural budget, the Ministry of Agriculture, Forestry and Water Management of Montenegro provides various grants intended for agricultural producers. Some of activities in Agro budget directly or indirectly contribute to land protection and thus to the effective implementation of Convention. Most of the defined activities are implemented in joint cooperation of Government and private sector. In some cases, Government finances activities in amount of 100% -grants, and for some other activities Government contribution is 50%, while private sector should ensure the remaining 50%. For example, for the activity SUPPORT FOR THE DEVELOPMENT OF VINE GROWING AND WINERY, Agricultural holding submits a request to the Ministry in accordance with the Public Call. The request is submitted exclusively on the form, which is integral part of the Public Call, and can be downloaded at the Ministry's website. Support is realized after administrative and on-site control. Specific criteria for support are defined by the Public Call. The maximum acceptable investment is €10,000, and the maximum acceptable amount of costs is up to 50% of the value of the investment, or up to 60% of the value of the investment for planting of autochthonous grape varieties. The maximum amount of support is €5,000 per household. To the moment of disbursement of funds, the newly raised must be updated in the Agricultural Register and in the Winery Register.

Tier 2: Table 3 International and domestic private resources

Year	Title of project, programme, activity or other	Total Amount USD	Financial Instrument	Type of institution	Recipient	Additional Information
	Total	0				

Please provide methodological information relevant to data presented in table 3

Has your country taken measures to encourage the private sector as well as non-governmental organizations, foundations and academia to provide international and domestic resources for the implementation of the Convention?

As explained previously, through the Agro budget, the Ministry of Agriculture, Forestry and Water Management of Montenegro provides various grants intended for agricultural producers. In some cases, Government finances activities in amount of 100% -grants, and for some other activities Government contribution is 50%, while private sector should ensure the remaining 50%.

General comments

SO5-4 Technology transfer

Tier 1: Please provide information relevant to the resources provided, received for the transfer of technology for the implementation of the Convention, including information on trends.

Trends in international bilateral and multilateral public resources provided

- ○ Up ↑
- ○ Stable ←→
- ○ Down ↓
- ◉ Unknown ∾

Trends in international bilateral and multilateral public resources received

- ○ Up ↑
- ○ Stable ←→
- ○ Down ↓
- ◉ Unknown ∾

Tier 2: Table 4 Resources provided and received for technology transfer measures or activities

Provided Received	Year	Title of project, programme, activity or other	Amount	Recipient Provider	Description and objectives	Sector	Type of technology	Activities undertaken by	Status of measure or activity	Timeframe of measure or activity	Use, impact and estimated results	Additional Information
Total provided:			0			Total received:		0				

Please provide methodological information relevant to data presented in table 4

Include information on underlying assumptions, definitions and methodologies used to identify and report on technology transfer support provided and/or received and/or required. Please include links to relevant documentation.

Please provide information on the types of new or current technologies required by your country to address desertification, land degradation and drought (DLDD), and the challenges encountered in acquiring or developing such technologies.

General comments

SO5-5 Future support for activities related to the implementation of the Convention

SO5-5.1: Planned provision and mobilization of domestic public and private resources

Please provide information relevant to the planned provision and mobilization of domestic resources for the implementation of the Convention, including information relevant to indicator SO5-2, as well as information on projected levels of public financial resources, target sectors and planned domestic policies.

Agro budget 2022 Budget of the ministries and EPA (land monitoring) Budget of the Biotechnical Faculty

SO5-5.2: Planned provision and mobilization of international public and private resources

Please provide information relevant to the planned provision and mobilization of international resources for the implementation of the Convention, including information on projected levels of public financial resources and support to capacity building and transfer of technology, target regions or countries, and planned programmes, policies and priorities.

According to the allocation of funds in GEF STAR 8, Montenegro has been financially supported with 6.293.028 USD in three areas: climate change, 1 million, 3 million of biodiversity and land degradation 2.293.028 USD. Those funds are still not utilized. Agreed projects: Project Disaster Risk Management Capability Assessment- The assessment of disaster risk management capacity will contain information and data on technical, financial and administrative capacities in Montenegro for adequate risk assessment, risk management planning for prevention and preparedness, and measures for risk prevention and preparedness. Prevention and preparedness measures will be clearly identified in the aforementioned document together with information on competent authorities, participating authorities and their tasks, schedule of measures, financial and material means for planning measures and priorities of measures and a consolidated database on risks affecting Montenegro. The total value of the project is €687,700.00, of which the European Union finances €652,420.00 (95%). The project will be implemented in the period 1 April 2022- 30 September 2023. Capacity Building Project for Disaster Risk Reduction through the National Forest Fire Information System (NFFIS) and Ecosystem Based Disaster Risk Reduction (ECO-DRR)- The main activity of the project is the introduction of the national information system for forest fires and disaster risk reduction based on ecosystem solutions (ECO-DRR), which should strengthen the capacities of the Directorate for Protection and Rescue and the relevant state authorities of Montenegro for the prevention and reduction of forest fires, fires and some other natural disasters. Since this is a regional project, which includes Montenegro and Kosovo, the amount is €4,014,766 (it is calculated that the budget will be divided equally). The project will be implemented in the period 02.03.2021-02.03.2026. Multi-beneficiary IPA program related to flood protection and forest fire risk management - IPA FF- The general goal of the project is to strengthen regional cooperation and the exchange of best practices in the field of protection against floods and forest fires, to support the beneficiary countries of the program in harmonizing national legislation with the acquis of the EU and help in reaching EU standards and practices in the field of civil protection. The program consists of two components: • Component 1 (floods): improve the legal and institutional framework related to the EU Floods Directive ("EUFD") and institutional cooperation among all actors involved in the implementation of the EUFD; • Component 2 (forest fires): improve prevention, preparedness and capacity to respond to forest fires at national, regional and EU level. The budget of the program for Montenegro is 140,000EUR, 90,000EUR for the procurement of equipment for civil protection module for extinguishing forest fires from the ground and 50,000EUR for the organization of trainings, workshops and possibly exercises in Montenegro. The project will be implemented in the period 15 November 2020- 14 November 2023. Low-carbon development strategy with an action plan. The Law on Protection from the Negative Impacts of Climate Change introduces the obligation to draw up a Low Carbon Development Strategy with an action plan. The development of this strategy was delegated as one of the priority activities within the project "Technical support for the monitoring and implementation of environmental protection policies and climate actions", financed from the IPA 2016-2020. Due to the situation related to COVID 19, the development of the strategy was postponed and re-delegated through the IPA III program 2021-2025. Meanwhile, funds in the amount of $150,000 have been approved by the World Bank for the development of the Strategy Framework, which will include models and scenarios, professional background and public participation in order to develop the Low Carbon Development Strategy. Adaptation to climate change and resilience in the mountainous areas of Montenegro. The preparation of the aforementioned project is ongoing, and the Ministry of Ecology, Spatial Planning and Urbanism, the Ministry of Agriculture and IFAD are involved in its development. The planned value of the project is 10,000,000 USD and the funds should be provided by the Adaptation Fund within the framework of the UNFCCC. This fund was established to finance adaptation projects and programs in developing countries that are signatories to the Convention and that are particularly threatened by the negative consequences of climate change. The project proposal envisages 3 components: • Sustainable life in the mountains through clustering of the mountain value chain for resilient rural transformation, development of climate-resistant mountain agricultural systems and promotion of green business; • Integrated area management through climate-resistant spatial planning at the local community level, natural positive landscape management, adaptation of public investments to rural areas); • Support to the Ministry of Ecology in directing the solutions for mountain adaptation to climate change in policies and strategies through building local and national capacities for including climate in planning for mountain areas, introducing lessons from the project into national policies and strategies. National Energy and Climate Plan (NECP)-For the development of the plan, support was received within the project "Development of capacities for climate policy in the countries of Southeastern and Eastern Europe, the South Caucasus and Central Asia - Phase III", and GIZ is responsible for its implementation. The value of the project is 100,000 eur. The goal of the project is to strengthen institutional capacities for integrated planning in the areas of climate change and energy and to support the process of drafting the first National Energy and Climate Plan in Montenegro. It is planned that the first draft of the National Energy and Climate Plans will be finalized by mid-2024 with the preparation of implementation reports every two years, starting in 2026. Biennial Transparency Report (BTR) and Fourth National Communication (FNC)--The project is implemented in cooperation with the United Nations Development Program - UNDP. Since the activities of the project are complementary to the project "Strengthening of the Montenegrin Nationally Determined Contribution (NDC) and the adaptation action within the framework of transparency through the initiative for capacity building for transparency - CBIT", they are implemented as one project. With this project, the Government of Montenegro will be assisted in the preparation and submission of its Fourth National Communication and the first biennial report on transparency for fulfilling the obligations from the United Nations Framework Convention on Climate Change (UNFCCC). The project started in February of this year and it is expected that the project will be finalized by the end of 2024. The value of the project is 617,000 USD, of which 517,000 USD is a donation and the remaining part is the contribution of the Ministry through the engagement of employees.

SO5-5.3: Resources needed

Please provide information relevant to the financial resources needed for the implementation of the Convention, including on the projects and regions which needs most support and on which your country has focused to the greatest extent.

Programs, actions and measures to achieve LDN in Montenegro up to 2030 are presented in LDN Report: Creation and adoption of the Law on Soil Protection (Law on Soil as natural resource) 20,000 USD Adoption of the Law on Agricultural Soil (in progress) 10,000 (USD) Soil monitoring program 350,000 (USD) Biodiversity research and monitoring program 700,000 (USD) Design of micro-accumulations in order to cope with fires and water scarcity in cattle breeding and perennial plants 1,500,000 (USD) Production and use of biochar in sustainable land management and study of its effect on soil 1,200,000 (USD) Raising awareness about soil and land degradation and promotion of sustainable land management through educational programs 450,000 (USD) Support to the improvement of the livestock fund (small ruminants - sheep and goats) 7,500,000 (USD) Improvement of agro-forestry sector through raising new orchards of hazel, pomegranate or other perennial species in the areas subjected to fires 1,200,000 (USD) Collection of all existing data related to soil organic carbon and other parameters of soil fertility into one integrated database 650,000 (USD) Strengthening national capacities (human and technical resources) in remote sensing 450,000 (USD) Registration of users of arable agricultural soil 300,000 (USD) Support for development of olive growing 1,000,000 (USD) Support for growing medical and aromatic plants 650,000 (USD) Support to investments in water supply (wells, reservoirs) 2,000,000 (USD) Preserving autochthonous genetic resources in agriculture 125,000 (USD) Support to organic production 2,200,000 (USD) Sustainable use of mountain pasture 1,375,000 (USD) Support to manure management 650,000 (USD) Education, investigations, development and analyses 550,000 (USD) Afforestation, arrangement and protection of forests and seedling production 4,100,000 (USD) Raising economic forests on private land (land use change) 200,000 (USD) Determination of Fire Weather index FWI 80,000 (USD) Raising perennial plantations 1,500,000 (USD) Soil erosion map creation 150,000 (USD) Potential hotspots in Montenegro, defined during LDN target setting process: Area: Type/driver/factor of degradation Podgorica area Urbanization, abandonment of agric., fires Danilovgrad area Urbanization, abandonment of agric Zijovo-Kuci Fires Ulcinj area Fires, abandonment of agriculture, urbanization Grbalj-Pastrovici Fires, urbanization Lovcen Fires Vilusi Fires Bijela gora Fires Golija Fires Orjen Fires Lola Fires Prekornica-Magagnik Fires Sinjajevina Fires Treskavac-Durmitor Fires Pljevlja Mining activity abandonment of agriculture Most of those measures has been recognized within LDN TPP project idea - "Application of agro ecological measures for the purpose of sustainable land use, forest management, mitigation and achievement of goals (LDN)" which received the support of the Global Mechanism of the UNCCD. The LDN TPP project is included in the National Program of Priority Activities within the framework of Montenegro's cooperation with the Green Climate Fund. For the preparation of the project Concept note, the UNCCD-Global Mechanism hired an international and national consultant. Drafting of Concept note is on going.

General comments

Financial and Non-Financial Sources

Increasing the mobilization of resources:

Would you like to share an experience on how your country has increased the mobilization of resources within the reporting period?

- (•) Yes
- ( ) No

What type of resources were mobilized (check all that apply)?

- ☐ Financial Resources
- ☒ Non-Financial

Which sources were mobilized?

- ☒ International
- ☐ Domestic
- ☐ Public
- ☐ Private
- ☐ Local communities
- ☐ Non-traditional funding sources
- ☐ Climate Finance
- ☐ Other (please specify)

Use this space to describe the experience:

UNCCD Global Mechanism's support in the preparation of National Drought Plan for Montenegro-engagement of national consultant. Taking into account that drought in Montenegro causes significant material damages, National Drought Plan will help in strengthening country's resilience to drought and better preparedness for potential drought in coming years. UNCCD Global Mechanism's support in the preparation of LDN TPP Concept note for the project "Application of agro-environmental measures for the purpose of sustainable land use, forest management, mitigation and achieving the goals of neutrality of land degradation (LDN)" -engagement of national and international consultant.

What were the challenges faced, if any?

The greatest challenges were lack of data and difficulties in communication due to Covid 19. National Drought Plan was prepared by consultant and further discussed and approved by National Working Group, established by Ministry of Sustainable Development and Tourism. After approval, it was submitted to UNCCD Secretariat. When it comes to development of LDN TPP Concept note, the greatest challenges were related to political instability and Governments officials turnover, which slowed down the whole process of establishment of National Working Group and engagement of implementing agency.

What do you consider to be the lessons learned?

Establishment of National Working Group in order to formalize the process and ensure more efficient and timely communication with relevant stakeholders, and to easier access to necessary data, is of crucial importance and should be done at the very beginning of the process.

How did you ensure that women benefited from/got access to this funding?

National Working Group for National Drought Plan is consisted of 20 members, out of which 14 are women. National Working Group for LDN TPP Concept note is consisted of 27 members, out of which 19 are women.

Use this space to provide any further complementary information you deem relevant:

Has your country supported other countries in the mobilization of financial and non-financial resources for the implementation of the Convention?

- ○ Yes
- ◉ No

Using Land Degradation Neutrality as a framework to increase investment:

From your perspective, would you consider that you have taken advantage of the LDN concept to enhance the coherence, effectiveness and multiple benefits of investments?

- ◉ Yes
- ○ No

Use this space to describe the experience:

LDN target setting process has increased awareness of issue of land degradation. It served as a basis for development of project idea "Application of agro-environmental measures for the purpose of sustainable land use, forest management, mitigation and achieving the goals of neutrality of land degradation (LDN)". Montenegro supported UNCCD initiative Land Degradation Neutrality Target Setting Process (LDN TPP) in 2016, which resulted in national report containing identification of 15 hotspots and 25 measures with an aim to achieve LDN in Montenegro up to 2030. The Report has shown that most represented type of land degradation is biological degradation caused by wildfires. Some of those measures presented in LDN Report, has been proposed for implementation within the above-mentioned project and will contribute to decrease in percent of degraded land. Investments, inter alia, include support for establishment of new orchards on previously degraded area and will, also, directly improve the livelihood of local population by their engagement in orchard plantations and distribution. The project will, furthermore, address the issue of fires and water scarcity by designing micro-accumulations and investing in water supply (wells, reservoirs) in order to cope with fires and water scarcity in cattle breeding and perennial plants. The major drivers of deforestation are land-use change, illegal logging, forest fire and disease. ESA land cover data for year 2000 and 2010 indicate the loss of 800 ha of forests and their conversion to shrubs and conversion of 1700 ha of forests to croplands. Totally, 74331 ha were found to be in three JRC land productivity dynamics classes with negative connotation. Establishment and protection of forests is, therefore, envisaged through project activities by afforestation, arrangement and protection of forests and seedling production. By this, agriculture, forestry and water sector, as sectors most vulnerable to climate change, will be addressed. Institutional, legislative and policy framework for LDN, as well as capacity building and raising awareness, is also foreseen, as this represent one of the stones for project's successful implementation and sustainability.

What were the challenges faced, if any?

The process of preparation of Concept note for the project is in an early stage. So far, the the greatest challenges were related to political instability and Governments officials turnover, which slowed down the whole process of establishment of National Working Group and engagement of implementing agency.

What do you consider to be the lessons learned?

The necessity of wide stakeholder involvement, including public institutions and private sector. National Working Group for preparation of LDN TPP concept note and project proposal has been established by Ministry of Ecology, Spatial Planning and Urbanism.

Improving existing and/or innovative financial processes and institutions

From your perspective, do you consider that your country has improved the use of existing and/or innovative financial processes and institutions?

- ○ Yes
- ◉ No

Policy and Planning

Action Programmes:

Has your country developed or helped develop, implement, revise or regularly monitor your national action programme?

- ○ Yes
- ◉ No

Policies and enabling environment:

During the reporting period, has your country established or helped establish policies and enabling environments to promote and/or implement solutions to combat desertification/land degradation and mitigate the effects of drought?

- ◉ Yes
- ○ No

These policies and enabling environments were aimed at (check all that apply):

- ☒ Promoting solutions to combat desertification, land degradation and drought (DLDD)
- ☐ Implementing solutions to combat DLDD
- ☐ Protecting women's land rights
- ☐ Enhancing women's access to natural, productive and/or financial resources
- ☐ Other (please specify)

How best to describe these experiences (check all that apply):

- ☒ Prevention of the effects of DLDD
- ☐ Relief efforts after DLDD has caused environmental and or socioeconomic stress on ecosystems and or populations
- ☐ Recovery efforts after DLDD has caused environmental and or socioeconomic stress on ecosystems and or populations
- ☒ Engagement of women in decision - making
- ☐ Implementation and promotion of women's land rights and access to land resources
- ☐ Building women's capacity for effective UNCCD implementation
- ☐ Other (please specify)

Use the space below to share more details about your country/sub-region/region/institution's experience.

Montenegro supported Drought Initiative, launched at the Conference of the UNCCD Parties, held in 2017, in Ordos, China, which was an impulse for further highlight of this issue and a first step in preparation of National Drought Plan and establishment of drought policies. The National Drought Plan was developed with support of UNCCD. The process was coordinated by the Government of Montenegro, through the Ministry of Sustainable Development and Tourism, and in a close cooperation with Montenegro National Focal Point for UNCCD, representing Institute of Hydrometeorology and Seismology of Montenegro. National Working Group (NWG) for development of National Drought Plan for Montenegro, was established by Ministry of Sustainable Development and Tourism, and gathered representatives from state and local administration, private sector, as well as an NGO. Results from consultations and meetings held with various stakeholders, were integrated into National Drought Plan, as well as existing data, reports and information from previous projects and programs, different national strategies, plans and legislation, and information available on web sites of different institutions. The results of DriDanube – Drought Risk in the Danube Region project, with an aim of establishing an integrated approach to drought monitoring, assessment and management, were largely used for the preparation of this document.

Do you consider these policies to be successful in promoting or implementing solutions to address DLDD, including prevention, relief and recovery, and what do you consider the main factors of success or lack thereof?

The purpose of Montenegro National Drought Plan is to point out the activities implemented so far and suggest directions for further development in drought management in Montenegro. NDP also stresses the importance of gender equality in drought related activities, as the issue of equal rights between man and woman is recognized in Constitution of Montenegro. Also, in the process of EU integration, Montenegro has committed to more effective advocacy for women's rights, by introduction the better institutional measures, as well as better coordination in the operation of institutions, in order to ensure the achievement of gender equality, which is the core value of the European Union. NDP defines establishment of National Drought Authority and Inter-Sectoral Drought Advisory Board that will develop and

implement plan in partnership with Reference organizations for drought, changing from reactive to proactive activities. Intention of this document is, together with Danube Drought Strategy, to serve as a guideline for governmental institutions that have the capabilities and resources to lead this process. It represents the first strategic document on national level dedicated specifically to drought issue. It gives an analysis of current situation when it comes to legislation, plans and policies related to agriculture, water management, biodiversity, etc. Drought policy is analyzed through three dimensions (Drought monitoring, forecasting, and impact assessment, Drought risk and vulnerability, and Drought mitigation and preparedness). A Chapter on drought monitoring, forecasting and impact assessment has described drought indices that are being used in Montenegro (Standardized Precipitation Index, Leaf Area Index, Fractional vegetation cover). Current monitoring, forecasting and data collection, maintained by the Institute of Hydrometeorology and Seismology, as well as drought impacts, has been described in this Chapter. Drought risk and vulnerability has been assessed by using Drought Watch tool (www.droughtwatch.eu), as an open interactive web application created within a framework of DriDanube project. National Drought Plan sets long-term goals with proposed measures for achieving them, identifies ways to prepare for droughts and defines a necessary institutional set up and policy makers involvement in corresponding actions, which will help in overcoming the gaps in the drought decision-making processes and improve drought emergency responses. Detailed assessment and proposed actions will serve as a good base for seeking funding support from public and private resources, national and international, in order to establish an effective national drought management. It will primarily be used as a starting point document for political dialogue, lobbying and building strong institutional set up for addressing drought issues.

What were the challenges faced, if any?

The process of National Drought Plan preparation was followed by difficulties in collecting data, due to unavailability and lack of information when it comes to drought, as well as due to a pandemic that reduced the possibility of direct contact with National Working Group members.

What would you consider to be the lessons learned?

The process identified most vulnerable sectors, deficiencies in knowledge base, as well as lacking capacities for better drought response. Further, it enabled identification of recommendations and measures required for the reaction on drought treats and impacts, taking into account existing national and regional initiatives and cooperatives. Identified threats to agricultural production, energy sector vulnerability due to extreme weather, vulnerability of water resources due to prolonged droughts and irrational use of this resource, indicate possible further exacerbations and impose the need of adoption of appropriate and practical measures. Only systematic approach and joint activities of national institutions and stakeholders could contribute to adequate treatment of drought issues in Montenegro. The recommendations derived from this document, should make easier future launching of appropriate initiatives and give directions for successful work of relevant institutions.

Has your country supported other countries in establishing policies and enabling environments to promote and implement solutions to combat desertification/land degradation and mitigate the effects of drought, including prevention, relief and recovery?

- ○ Yes
- ◉ No

Synergies:

From your perspective, has your country leveraged synergies and integrated DLDD into national plans related to other MEAs, particularly the other Rio Conventions and other international commitments?

- ◉ Yes
- ○ No

Your country's actions were aimed at (please check all that apply):

- ☐ Leveraging DLDD with other national plans related to the other Rio Conventions
- ☒ Integrating DLDD into national plans
- ☐ Leveraging synergies with other strategies to combat DLDD
- ☐ Integrating DLDD into other international commitments
- ☐ Other (please specify)

Use the space below to describe your country's experience.

The Montenegro Third National Communication on Climate Change (2020), prepared in a cooperation of Ministry of Sustainable Development and Tourism (MSDT) and United Nations Development Programme (UNDP) in Montenegro, as an international obligation

under the UNFCCC, defines the water sector, the agriculture and forestry sector, and coastal areas, as most vulnerable sectors to climate change. The document tackles the issue of land use, droughts, floods, forest fires which have a huge impact on land. One part of the document is specially devoted to land degradation, as it makes agricultural production in Montenegro more sensitive to climate change impacts. It is stated that the assessment of Land Degradation Neutrality (LDN) is required to understand the level of land degradation in the country. Third National Communication on Climate Change defines a number of measures identified in the LDN Target Setting Programme which are directly related to addressing climate change vulnerability.

Do you consider this experience a success and, if so, what do you consider the reasons behind this success (or lack thereof)?

Good and effective cooperation between responsible Ministry and other stakeholders.

What were the challenges faced, if any?

No specific challenges occurred.

What would you consider to be the lessons learned?

Cross-sectoral communication, strengthening of local and regional governments and other relevant national, regional, and local stakeholders is important for DLDD integration into different national plans.

Mainstreaming desertification, land degradation and drought:

From your perspective, did your country take specific actions to mainstream, DLDD in economic, environmental and social policies, with a view to increasing the impact and effectiveness of the implementation of the Convention?

- ○ Yes
- ◉ No

Drought-related policies:

Has your country established or is your country establishing national policies, measures and governance for drought preparedness and management?

- ◉ Yes
- ○ No

Use the space below to describe your country's experience.

National Drought Plan has been successfully developed, with a support of UNCCD, as described in a previous responses. National Drought Plan was approved by National Working Group and sent to UNCCD Secretariat, but it still has not been adopted by the Government of Montenegro.

Do you consider this experience a success and, if so, what do you consider the reasons behind this success (or lack thereof)?

Previously answered at the beginning of this section.

What were the challenges faced, if any?

Previously answered at the beginning of this section.

What would you consider to be the lessons learned?

Previously answered at the beginning of this section.

Has your country supported other countries in establishing policies, measures and governance for drought preparedness and management, in accordance with the mandate of the Convention?

- ( ) Yes
- (•) No

Action on the Ground

Sustainable land management practices:

Has your country implemented or is your country implementing sustainable land management (SLM) practices to address DLDD?

- ○ Yes
- ◉ No

Has your country supported other countries in the implementation of SLM practices?

- ○ Yes
- ◉ No

Restoration and Rehabilitation:

Has your country implemented or is your country implementing restoration and rehabilitation practices in order to assist with the recovery of ecosystem functions and services?

- ○ Yes
- ◉ No

Drought risk management and early warning systems:

Is your country developing a drought risk management plan, monitoring or early warning systems and safety net programmes to address DLDD?

- ◉ Yes
- ○ No

If so, DLDD was mainstreamed into (check all that apply):

☒ A drought risk management plan
☒ Monitoring and early warning systems
☐ Safety net programmes

Use the space below to describe your country's experience.

Permanent Drought monitoring in Montenegro was established as part of the IPA project DMCSEE (Center for Drought Management for the Region of Southeast Europe www.dmcsee.org, www.dmcsee.eu), co-financed by the European Union through the Southeast European Cooperation Program. Monitoring is carried out by Institute of Hydrometeorology and Seismology, by calculating the SPI index (ie standardized precipitation index) at different time intervals (30 days, 60 days, month, season, year, etc.) monthly SPI and by monthly display of FVC and LAI indices related to vegetation status, and these were calculated from data obtained through the LANDSAF satellite Montenegro supported Drought Initiative, launched at the Conference of the UNCCD Parties, held in 2017, in Ordos, China, which was an impulse for further highlight of this issue and a first step in preparation of National Drought Plan and establishment of drought policies. The National Drought Plan was developed with support of UNCCD. The process was coordinated by the Government of Montenegro, through the Ministry of Sustainable Development and Tourism, and in a close cooperation with Montenegro National Focal Point for UNCCD, representing Institute of Hydrometeorology and Seismology of Montenegro. National Working Group (NWG) for development of National Drought Plan for Montenegro, was established by Ministry of Sustainable Development and Tourism, and gathered representatives from state and local administration, private sector, as well as an NGO. Results from consultations and meetings held with various stakeholders, were integrated into National Drought Plan, as well as existing data, reports and information from previous projects and programs, different national strategies, plans and legislation, and information available on web sites of different institutions. The results of DriDanube – Drought Risk in the Danube Region project, with an aim of establishing an integrated approach to drought monitoring, assessment and management, were largely used for the preparation of this document.

Do you consider this experience a success and, if so, what do you consider the reasons behind this success (or lack thereof)?

The success is that the drought monitoring since IPA DMCSEE project was improved within INTERREG DRIDANUBE project, using Drought Watch tool. It is evident that there is still lack of NDP adoption and implementation.

If you have or are developing a drought risk management plan as part of the Drought Initiative, please share here your experience on activities undertaken?

The National Drought Plan was developed with support of UNCCD. The process was coordinated by the Government of Montenegro, through the Ministry of Sustainable Development and Tourism, and in a close cooperation with Montenegro National Focal Point for UNCCD, representing Institute of Hydrometeorology and Seismology of Montenegro. National Working Group (NWG) for development of National Drought Plan for Montenegro, was established by Ministry of Sustainable Development and Tourism, and gathered representatives from state and local administration, private sector, as well as an NGO. Results from consultations and meetings held with various stakeholders, were integrated into National Drought Plan, as well as existing data, reports and information from previous projects and programs, different national strategies, plans and legislation, and information available on web sites of different institutions. The results of DriDanube – Drought Risk in the Danube Region project, with an aim of establishing an integrated approach to drought monitoring, assessment and management, were largely used for the preparation of this document.

What were the challenges faced, if any?

The process of National Drought Plan preparation was followed by difficulties in collecting data, due to unavailability and lack of information when it comes to drought, as well as due to a pandemic that reduced the possibility of direct contact with National Working Group members.

What would you consider to be the lessons learned?

The process identified most vulnerable sectors, deficiencies in knowledge base, as well as lacking capacities for better drought response. Further, it enabled identification of recommendations and measures required for the reaction on drought treats and impacts, taking into account existing national and regional initiatives and cooperatives. Identified threats to agricultural production, energy sector vulnerability due to extreme weather, vulnerability of water resources due to prolonged droughts and irrational use of this resource, indicate possible further exacerbations and impose the need of adoption of appropriate and practical measures. Only systematic approach and joint activities of national institutions and stakeholders could contribute to adequate treatment of drought issues in Montenegro. The recommendations derived from this document, should make easier future launching of appropriate initiatives and give directions for successful work of relevant institutions.

Has your country supported other countries in developing drought risk management, monitoring and early warning systems and safety net programmes to address DLDD?

- ○ Yes
- ◉ No

Alternative livelihoods:

Does your country promote alternative livelihoods practice in the context of DLDD?

- ○ Yes
- ◉ No

Do you consider your country to be taking special measures to engage women and youth in promoting alternative livelihoods?

- ○ Yes
- ◉ No

Establishing knowledge sharing systems:

Has your country established systems for sharing information and knowledge and facilitating networking on best practices and approaches to drought management?

- ○ Yes
- ◉ No

Do you consider that your country has implemented specific actions that promote women's access to knowledge and technology?

- (●) Yes
- ( ) No

Please elaborate

Montenegro has made progress in linking gender equality and climate change in the framework of gender equality policy, namely the National Strategy for Gender Equality for the period 2021-2025, with the Action Plan 2021-2022. This Strategy links gender equality and climate change only in the health sector, while other climate-related sectors are lacking. UNDP, in cooperation with Ministry of Ecology, Spatial planning and Urbanism, conducted two assessments in 2021 that indicate the main characteristics and capacities of state and non-state actors to participate in the creation, implementation and monitoring of policies and actions in the field of climate change by linking gender equality and climate change. The first assessment, Gender Analysis, focused on assessing the capacity of national climate change institutions to integrate gender equality issues into climate change policies. The second assessment, the Civil Society Gender Capacity Assessment, focused primarily on environmental / climate change NGOs, on the one hand, and NGOs working to protect and empower women and marginalized groups, on the other. As a result of these assessments, recommendations were made for the development of a systematic approach to linking gender equality and climate change at the policy level, through inter-institutional cooperation, training tools to strengthen institutions' capacity to implement specific gender-sensitive climate actions and gender-sensitive funding. An additional set of recommendations has been prepared for local NGOs with the aim of improving their capacity to raise public awareness, while increasing the participation of local women, men and vulnerable groups in adaptation and mitigation policies. In Strategy for the Development of Agriculture and Rural Areas of Montenegro 2015-2020, with the Action Plan for Alignment with the Acquis Communautaire Chapter 11-Agriculture and Rural Development, gender perspective is only tackled in the sex disaggregated data shown in the Gender and Age Structure of the Workforce on Family Agriculture Holdings, which is not further considered into concrete measures, goals, activities, etc. Program for Development of Agriculture and Rural areas of Montenegro within IPARD 2014-2020-incentive measures for women from rural areas were implemented, in terms of modernization of holdings, strengthening of production competitiveness, increasing the productivity of holdings, reducing costs, increasing product quality, hygiene and food safety. Agro budget for 2020 and Agro budget for 2022 provide special support to women as holders of agricultural holdings: Support to upgrading of the quality of fresh milk, some additional funds were available for women who apply for subsidies from national budget.

Do you consider this experience a success and, if so, what do you consider the reasons behind this success (or lack thereof)?

What were the challenges faced, if any?

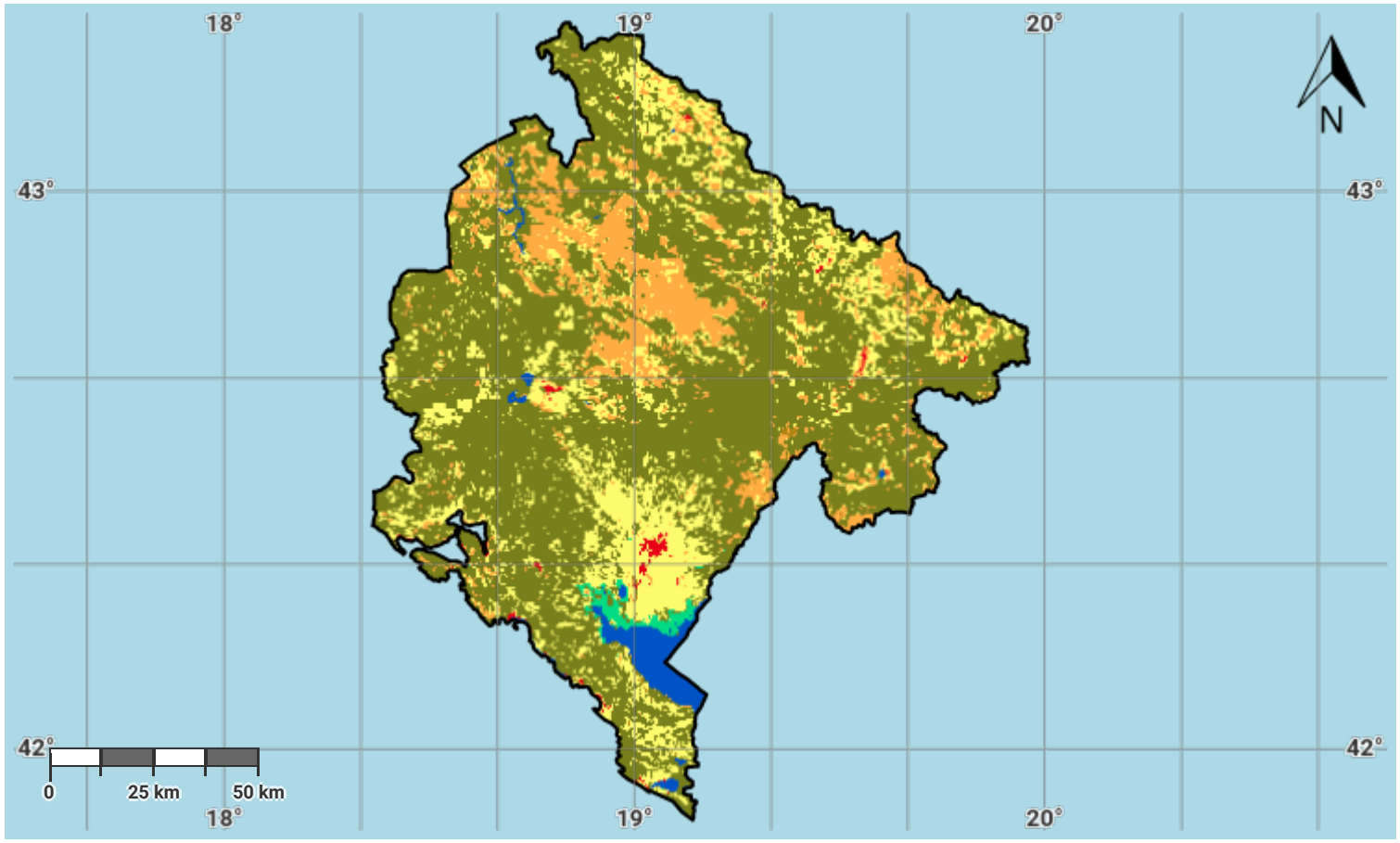
What would you consider to be the lessons learned?

Other files for Reporting

Montenegro - SO5-1 recipient	Download	10.9 KB
Montenegro_PO	Download	13.1 KB

Montenegro – SO1-1.M1

Land cover in the initial year of the baseline period



Legend

- No data
- Tree-covered
- Grassland
- Cropland
- Wetland
- Artificial
- Other land
- Water body
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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Source Data Credits

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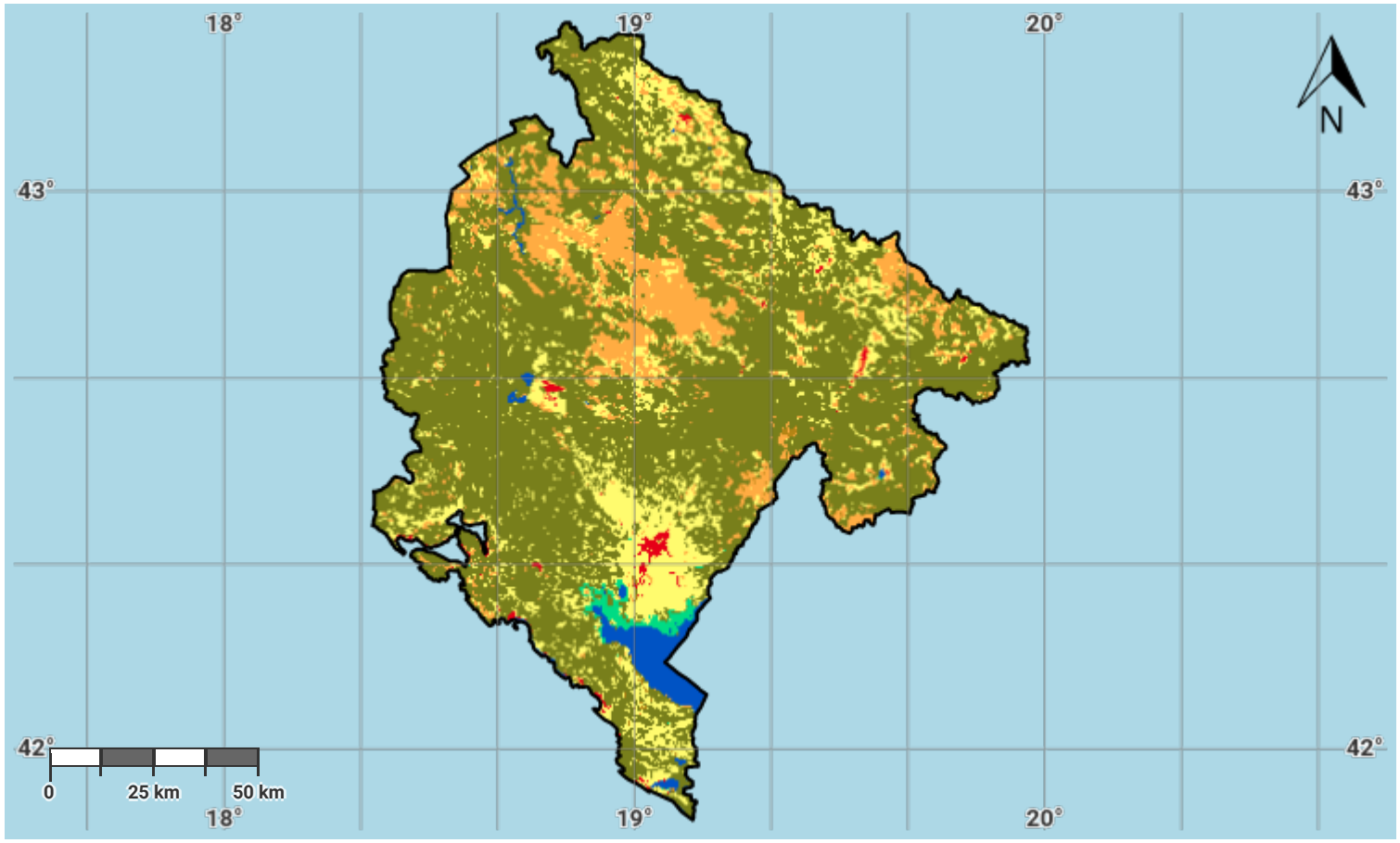
- European Space Agency Climate Change Initiative Land Cover (ESA CCI-LC) product, 1992-2019. URL: https://www.esa-landcover-cci.org/

Montenegro – SO1-1.M2

Land cover in the baseline year



Legend

- No data
- Tree-covered
- Grassland
- Cropland
- Wetland
- Artificial
- Other land
- Water body
- International Boundary

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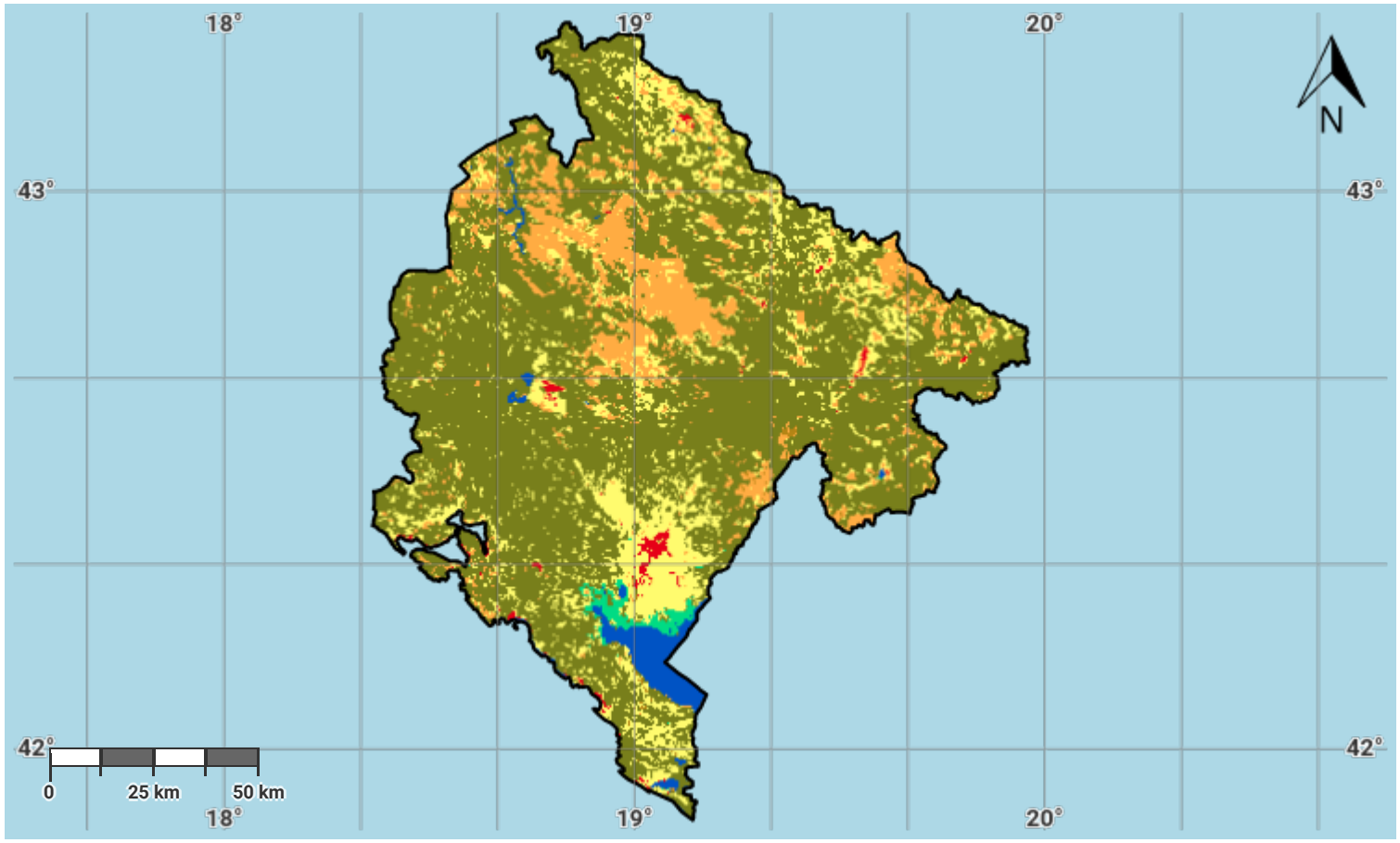
Montenegro – SO1-1.M3

Land cover in the latest reporting year



Legend

- No data
- Tree-covered
- Grassland
- Cropland
- Wetland
- Artificial
- Other land
- Water body
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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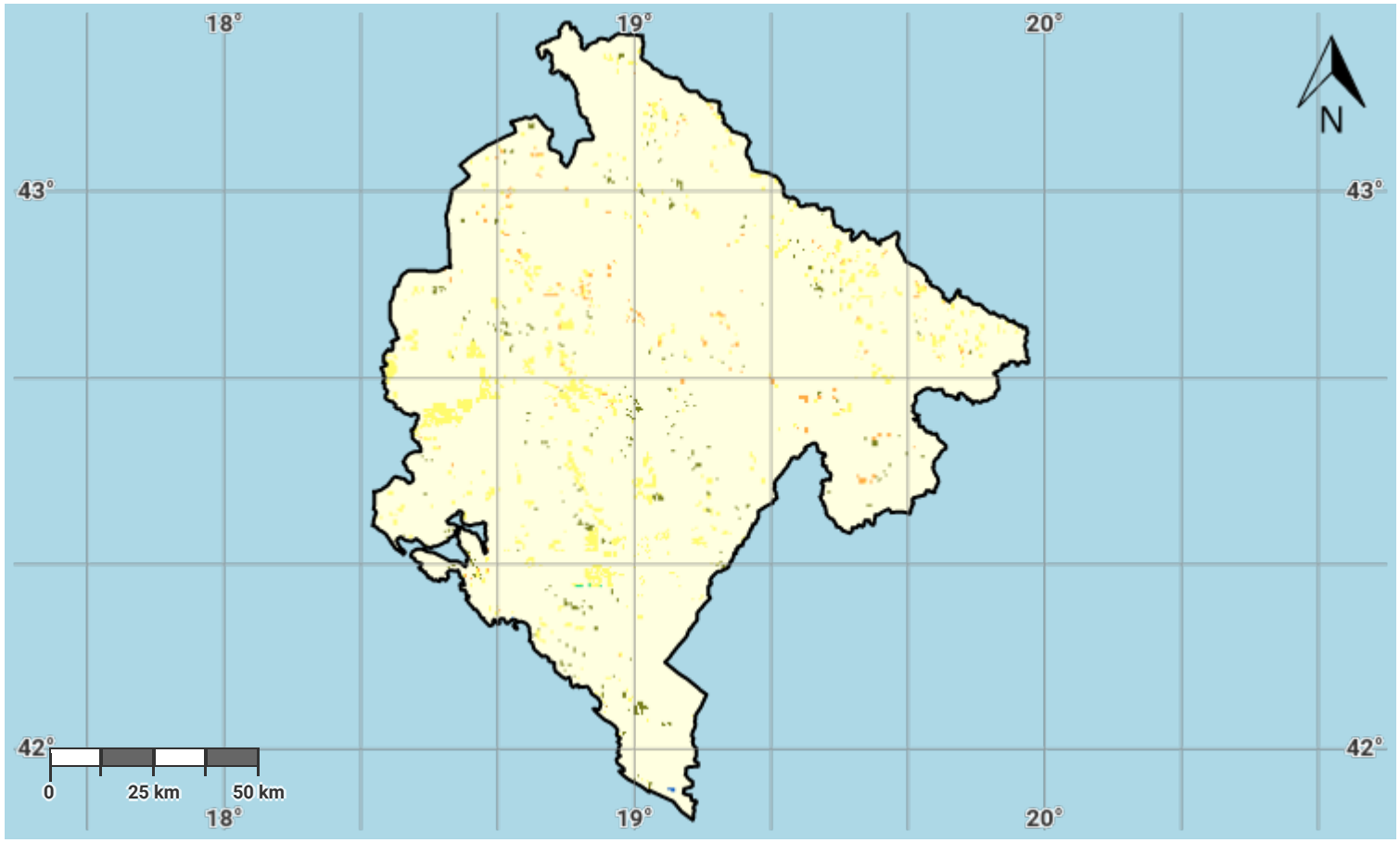
Montenegro – SO1-1.M4

Land cover change in the baseline period



Legend

- No data
- No change
- Tree-covered loss
- Grassland loss
- Cropland loss
- Wetland loss
- Artificial loss
- Other land loss
- Water body loss
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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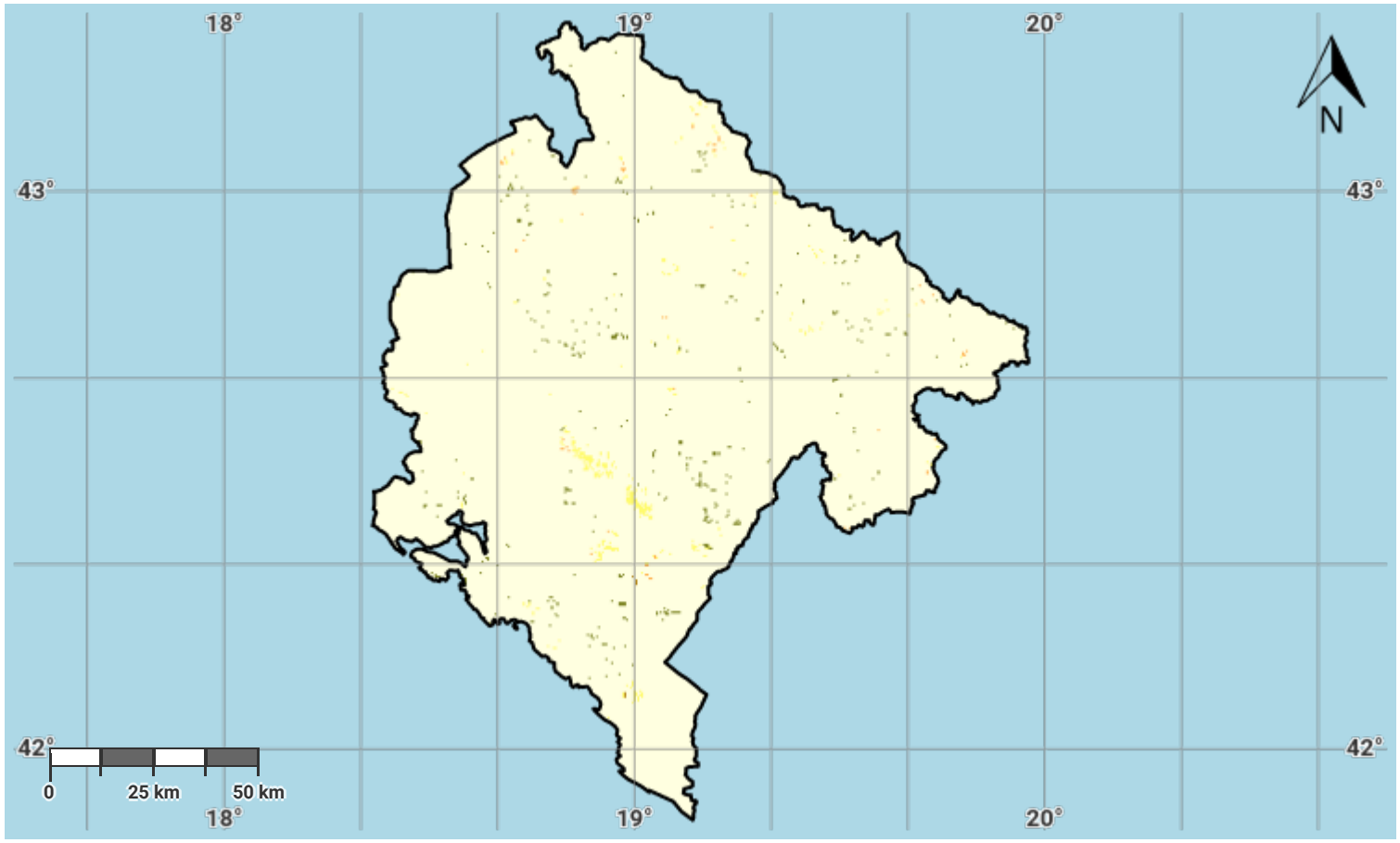
Montenegro – SO1-1.M5

Land cover change in the reporting period



Legend

- No data
- No change
- Tree-covered loss
- Grassland loss
- Cropland loss
- Wetland loss
- Artificial loss
- Other land loss
- Water body loss
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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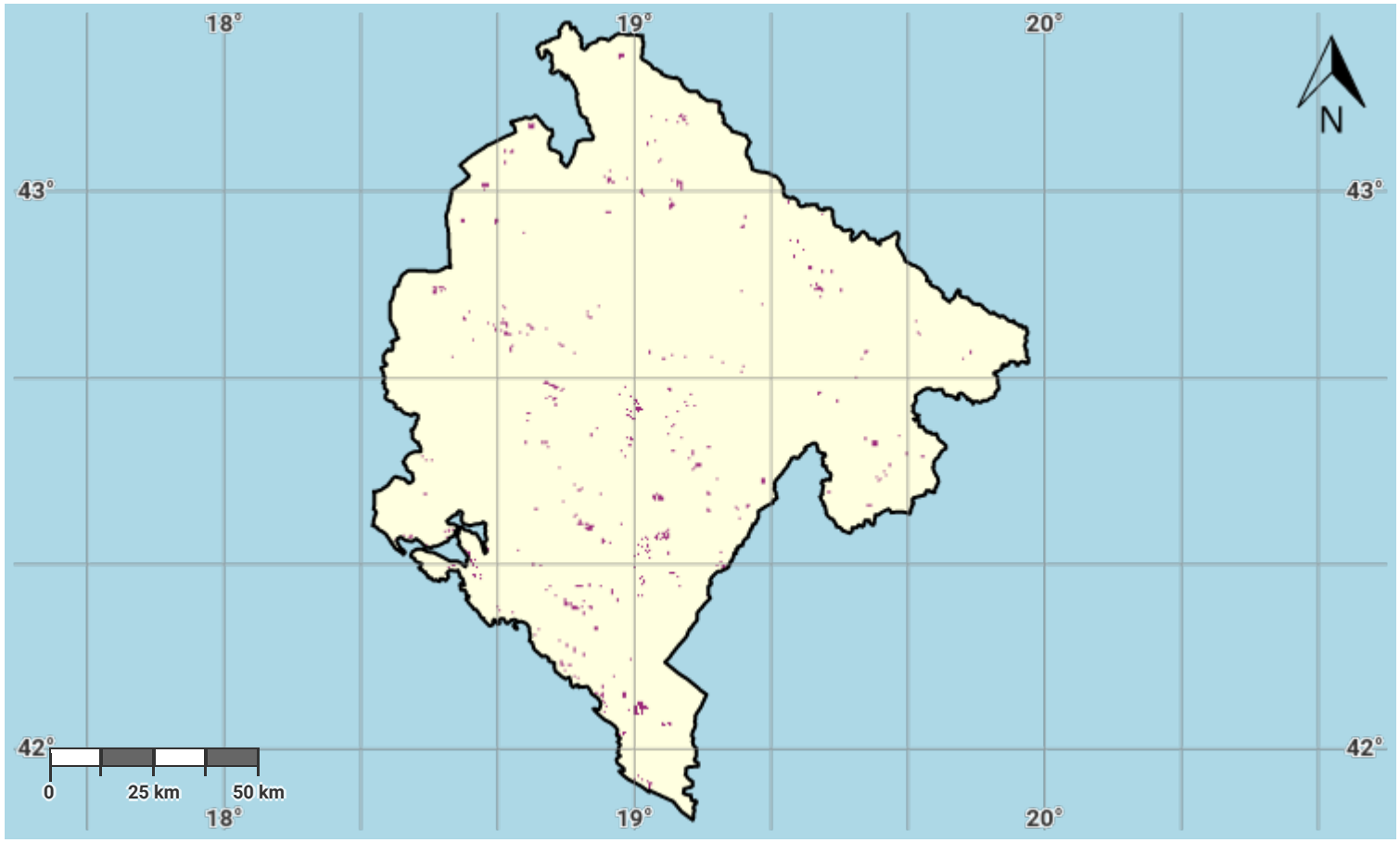
Montenegro – SO1-1.M6

Land cover degradation in the baseline period



Legend

- No data
- Degradation
- Not degraded
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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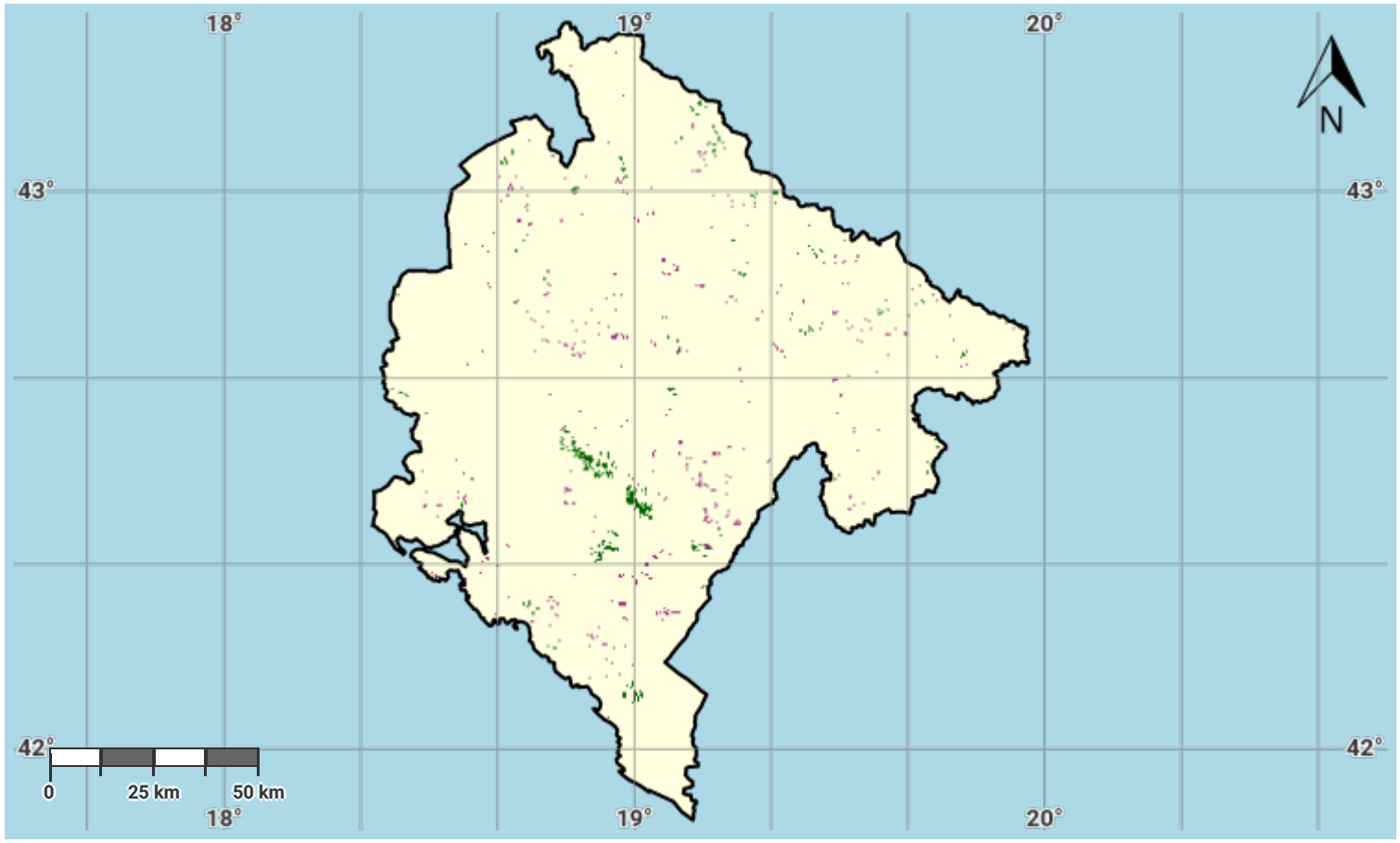
Montenegro – SO1-1.M7

Land cover degradation in the reporting period



Legend

- No data
- Degradation
- Stable
- Improvement
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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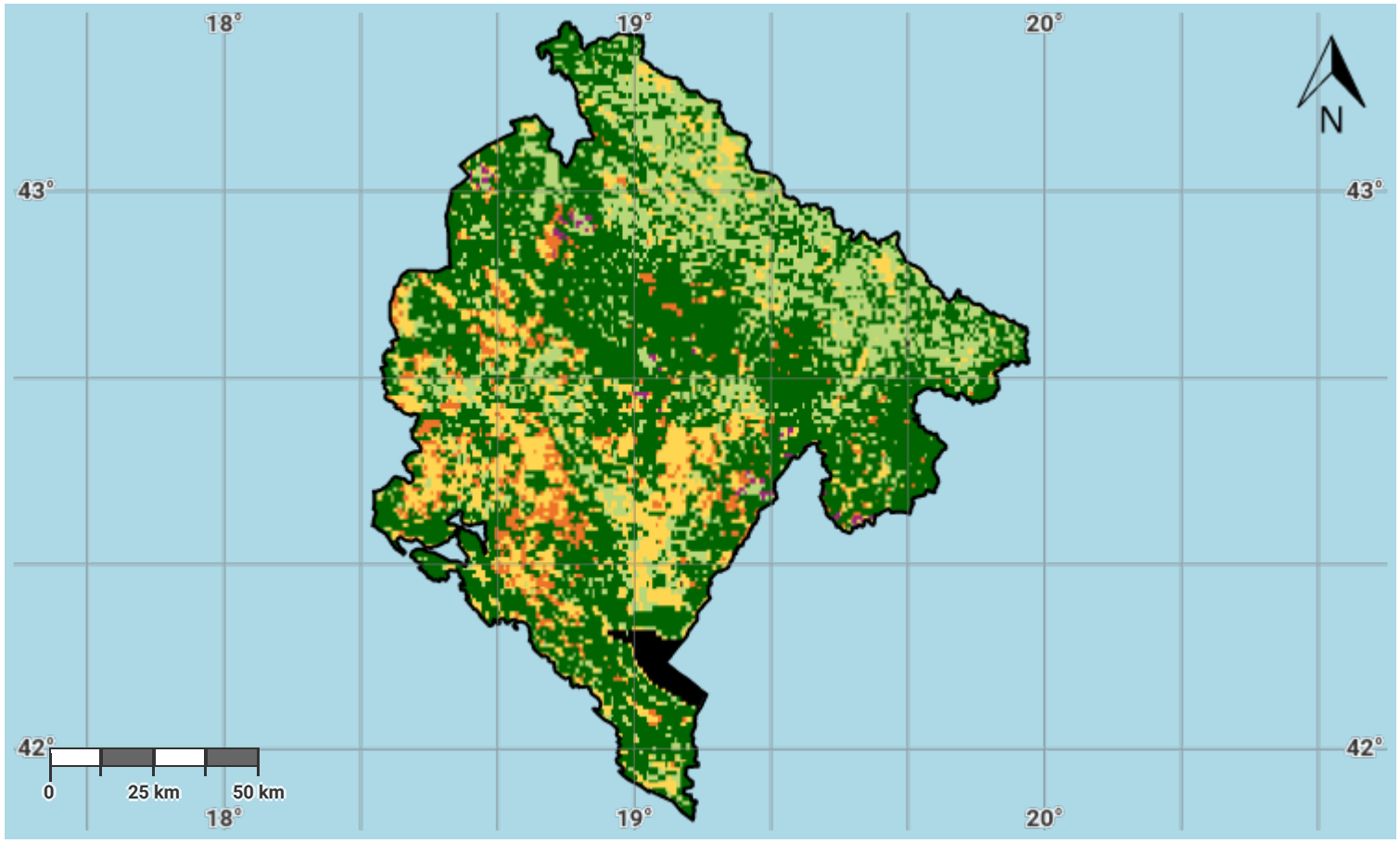
Montenegro – SO1-2.M1

Land productivity dynamics in the baseline period



Legend

- No data
- Declining
- Moderate decline
- Stressed
- Stable
- Increasing
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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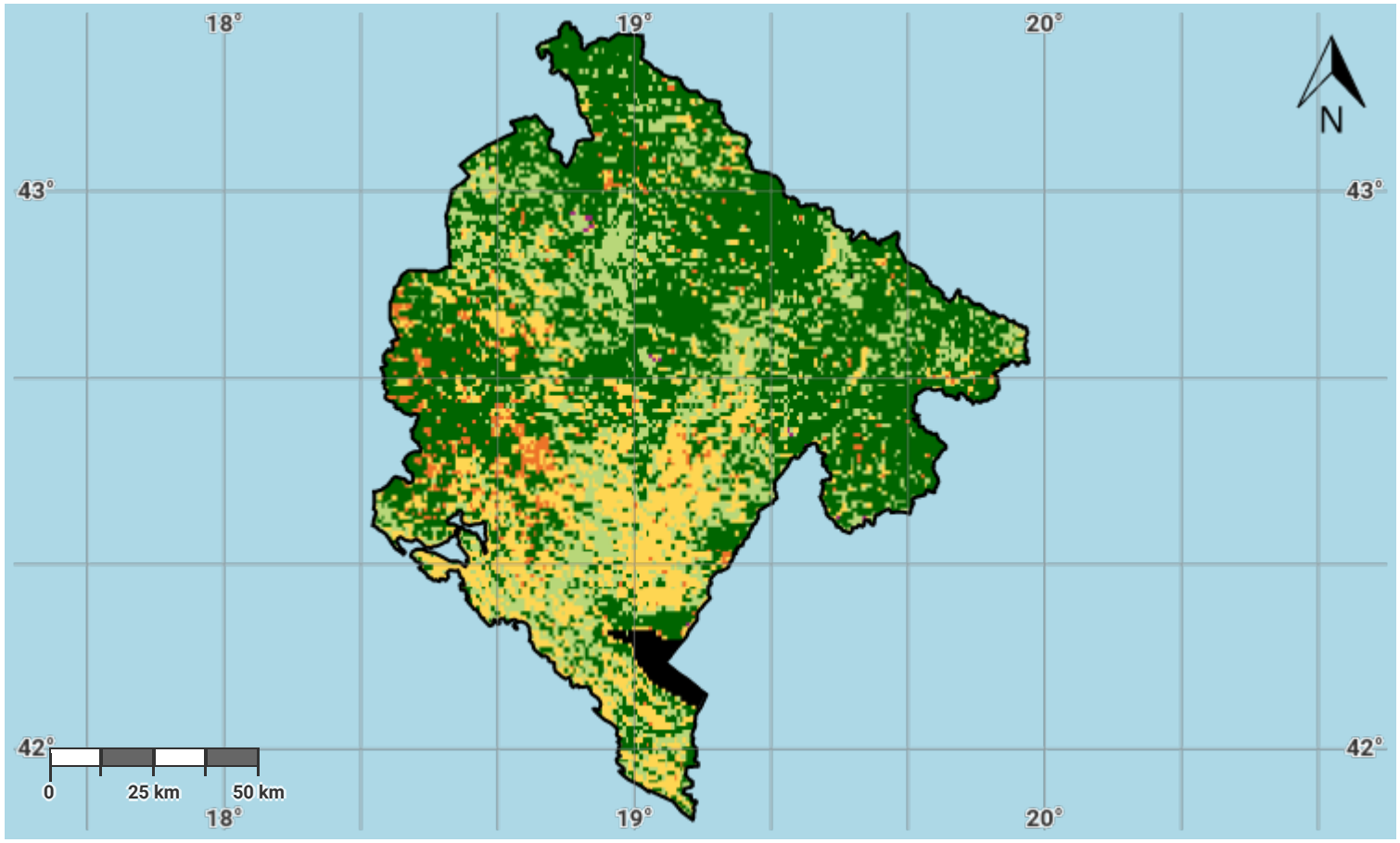
Montenegro – SO1-2.M2

Land productivity dynamics in the reporting period



Legend

- No data
- Declining
- Moderate decline
- Stressed
- Stable
- Increasing
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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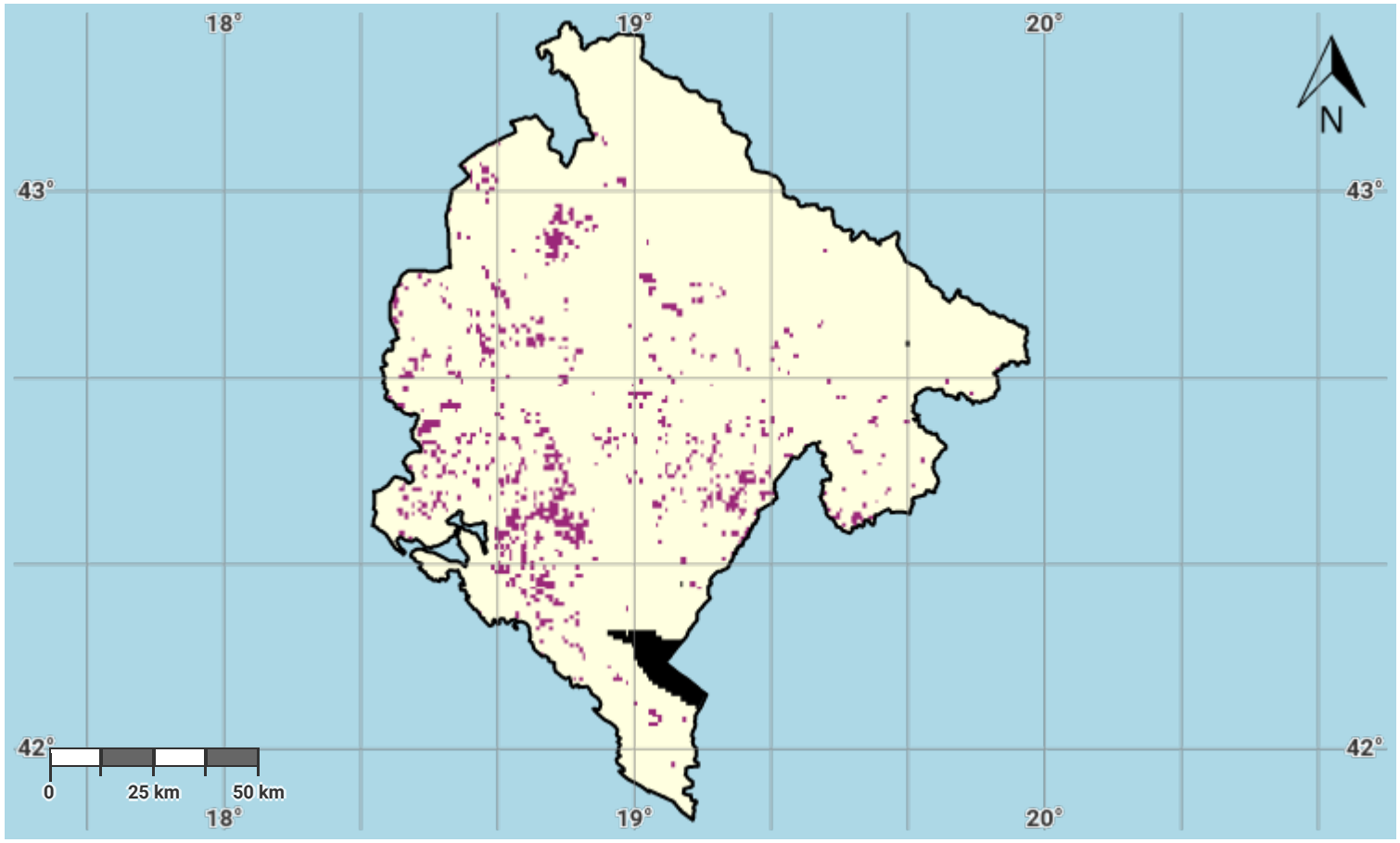
Montenegro – SO1-2.M3

Land productivity degradation in the baseline period



Legend

- No data
- Degradation
- Not degraded
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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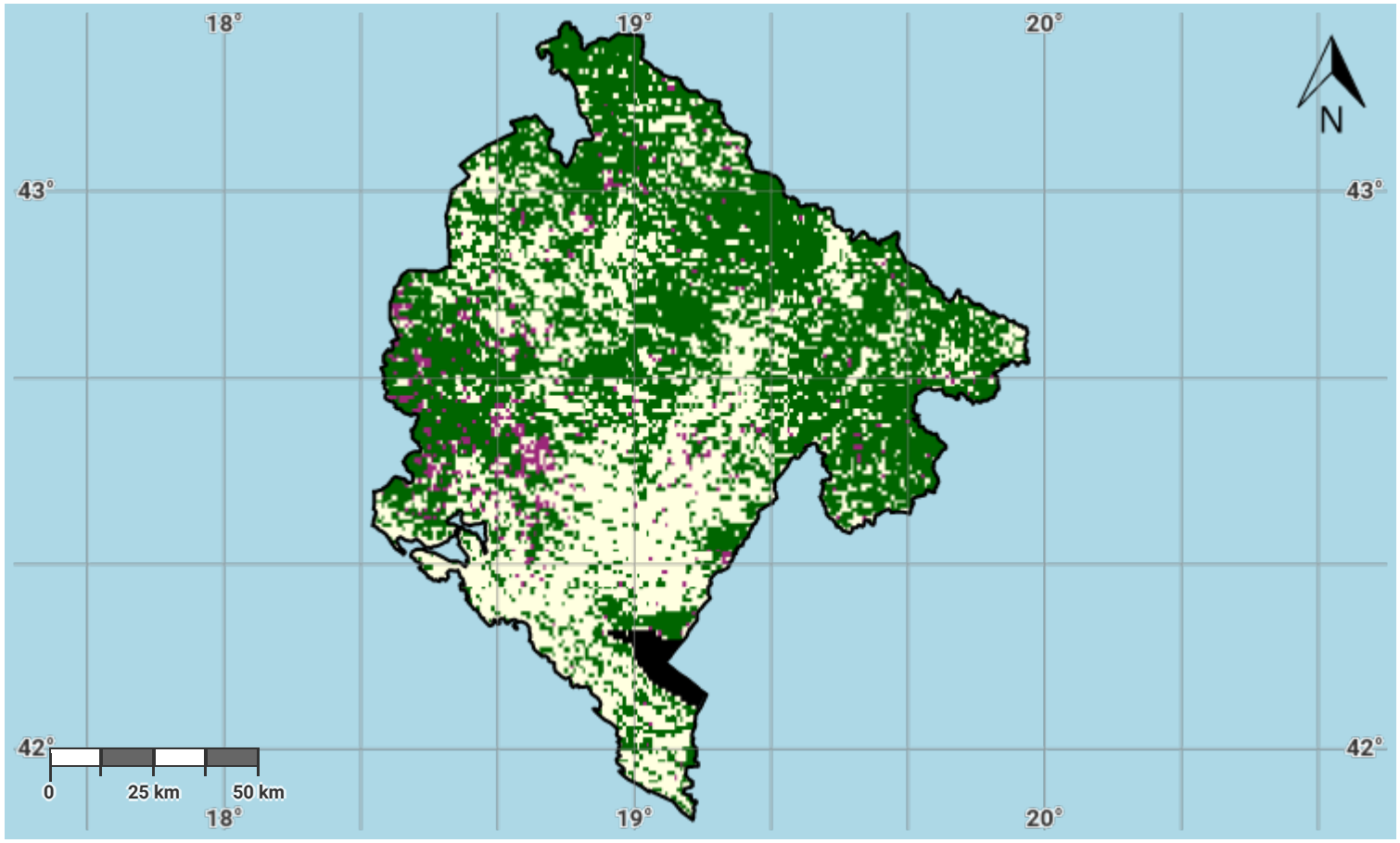
Montenegro – SO1-2.M4

Land productivity degradation in the reporting period



Legend

- No data
- Degradation
- Not degraded
- Improvement
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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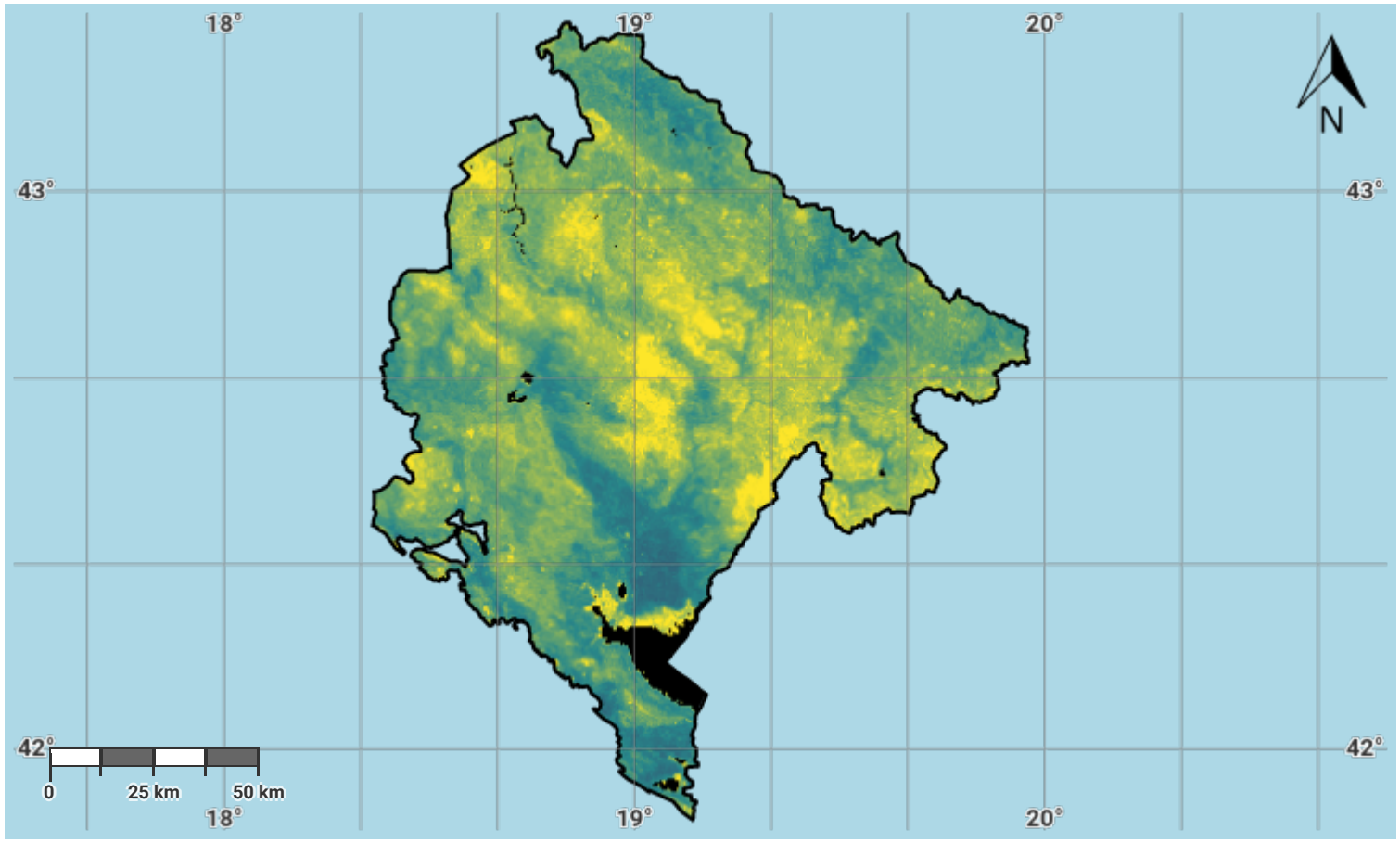
Source Data Credits

- United Nations Clear Map, United Nations Geospatial.
- EC-JRC, 2021, based on Xavier Rotllan-Puig, Eva Ivits, Michael Cherlet, LPDynR: A new tool to calculate the land productivity dynamics indicator, Ecological Indicators, Volume 133, 2021, 108386, ISSN 1470-160X. URL: https://doi.org/10.1016/j.ecolind.2021.108386

Montenegro – SO1-3.M1

Soil organic carbon stock in the initial year of the baseline period



Legend

- No data
- 0 - 110.5 t/ha
- 110.5 - 221.0 t/ha
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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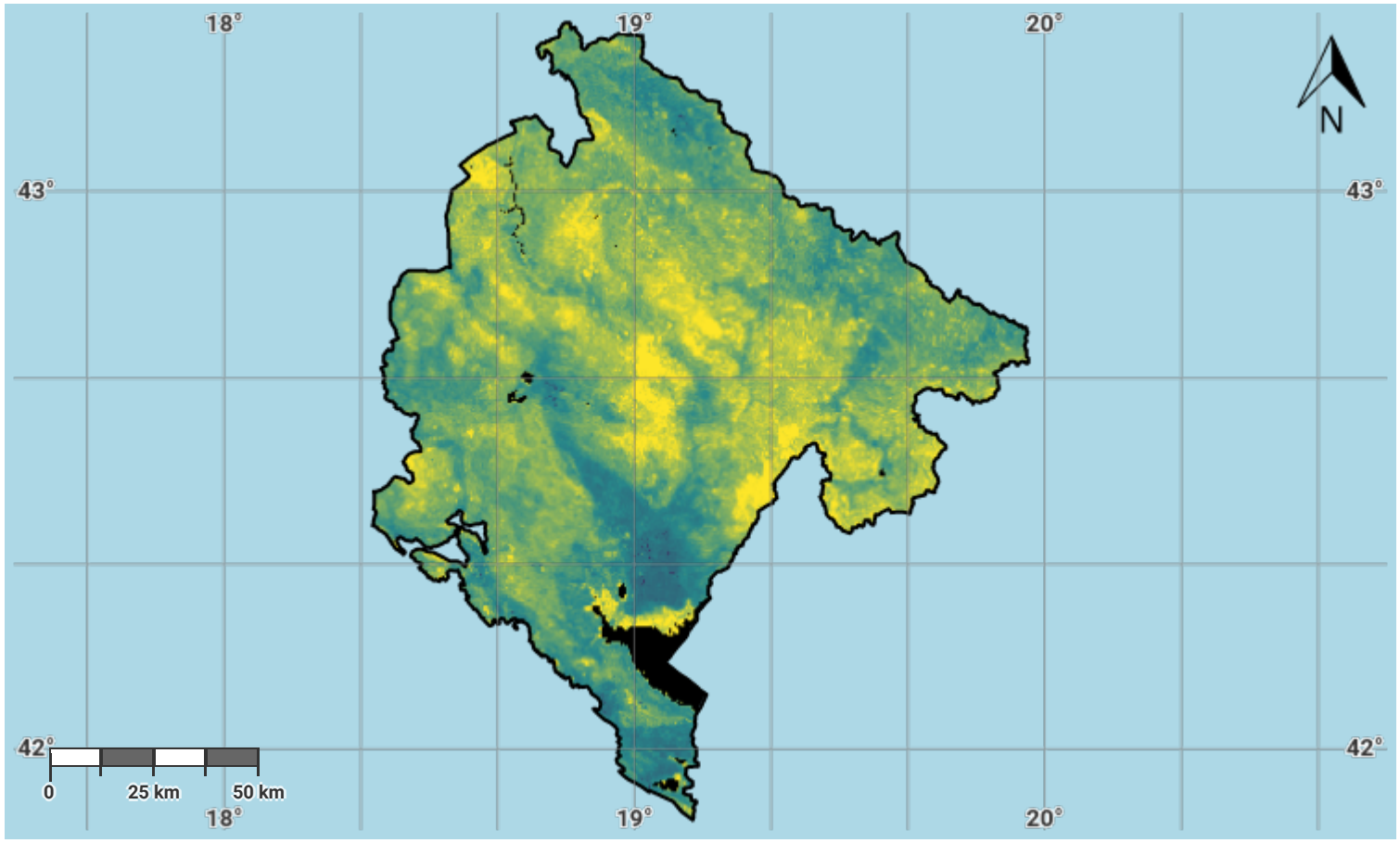
Source Data Credits

- United Nations Clear Map, United Nations Geospatial.
- International Soil Reference and Information Centre (ISRIC) SoilGrids250m dataset. URL: https://www.isric.org/explore/soilgrids

Montenegro – SO1-3.M2

Soil organic carbon stock in the baseline year



Legend

- No data
- 0 - 110.5 t/ha
- 110.5 - 221.0 t/ha
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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Source Data Credits

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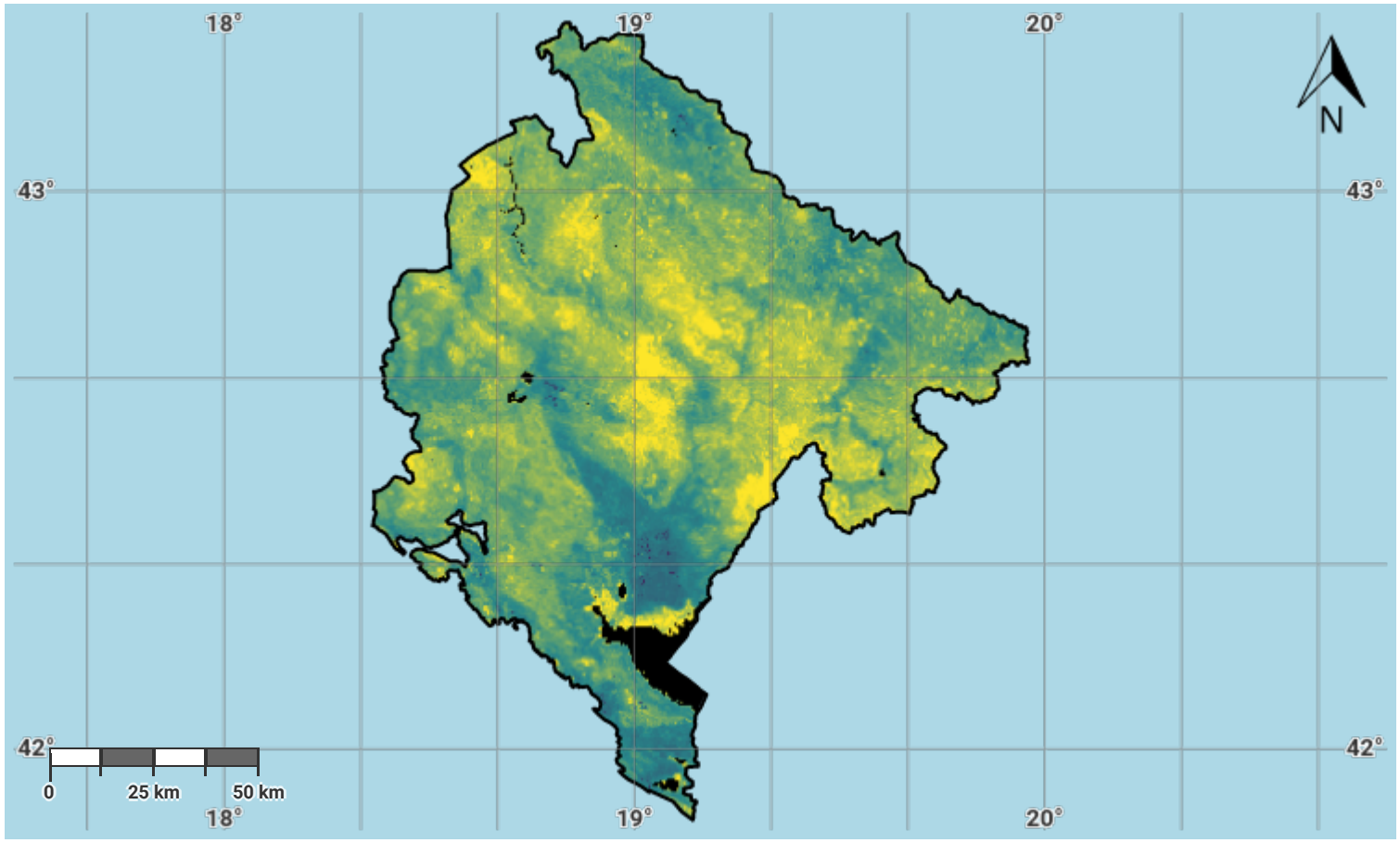
- International Soil Reference and Information Centre (ISRIC) SoilGrids250m dataset. URL: https://www.isric.org/explore/soilgrids

Montenegro – SO1-3.M3

Soil organic carbon stock in the latest reporting year



Legend

- No data
- 0 - 111.0 t/ha
- 111.0 - 222.0 t/ha
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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Source Data Credits

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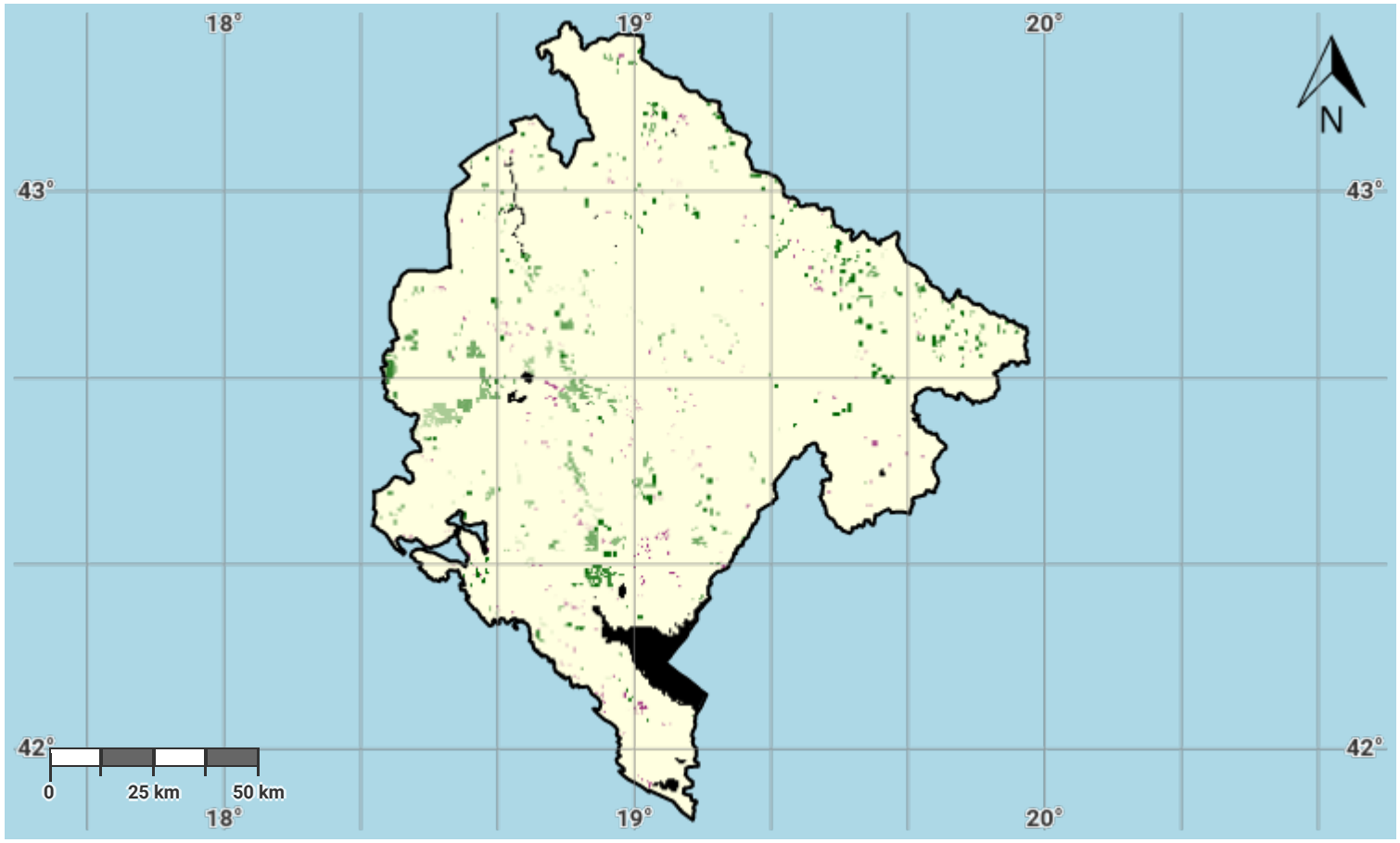
- International Soil Reference and Information Centre (ISRIC) SoilGrids250m dataset. URL: https://www.isric.org/explore/soilgrids

Montenegro – SO1-3.M4

Change in soil organic carbon stock in the baseline period



Legend

- No data
- -18.0 - 0 t/ha
- 0 - 18.0 t/ha
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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Source Data Credits

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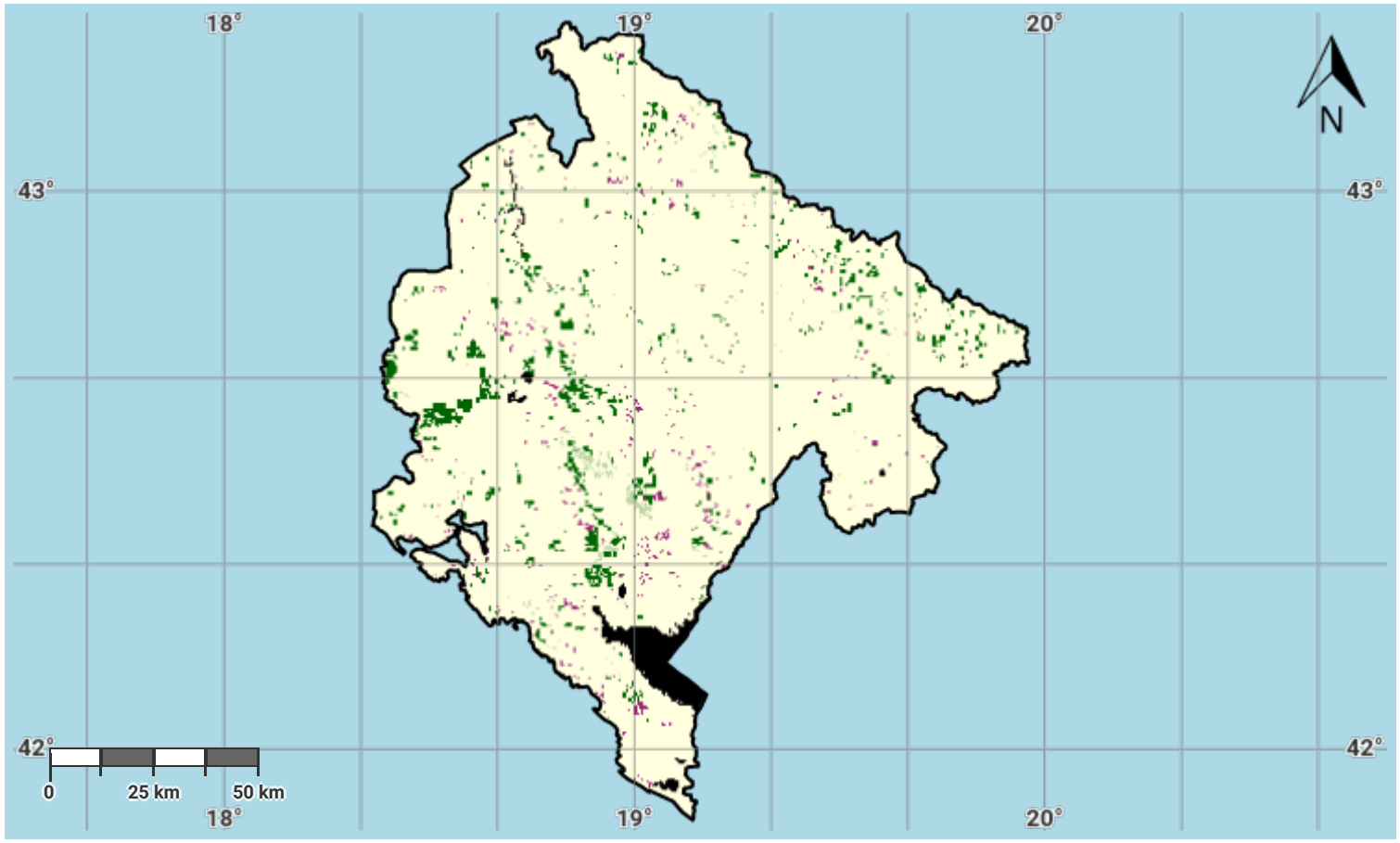
- International Soil Reference and Information Centre (ISRIC) SoilGrids250m dataset. URL: https://www.isric.org/explore/soilgrids

Montenegro – SO1-3.M5

Change in soil organic carbon stock in the reporting period



Legend

- No data
- -4.0 - 0 t/ha
- 0 - 4.0 t/ha
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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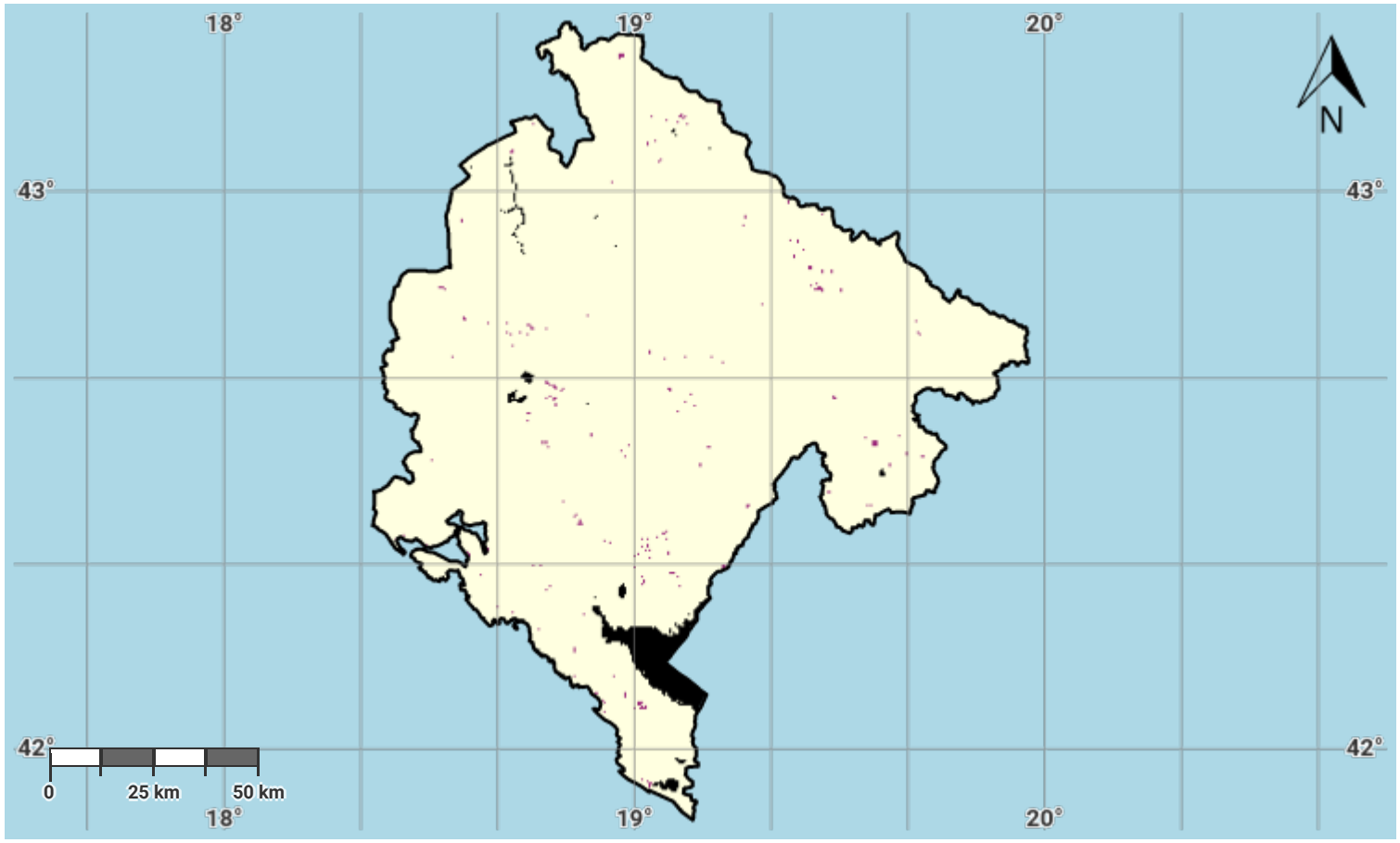
Source Data Credits

- United Nations Clear Map, United Nations Geospatial.
- International Soil Reference and Information Centre (ISRIC) SoilGrids250m dataset. URL: https://www.isric.org/explore/soilgrids

Montenegro – SO1-3.M6

Soil organic carbon degradation in the baseline period



Legend

- No data
- Degradation
- Not degraded
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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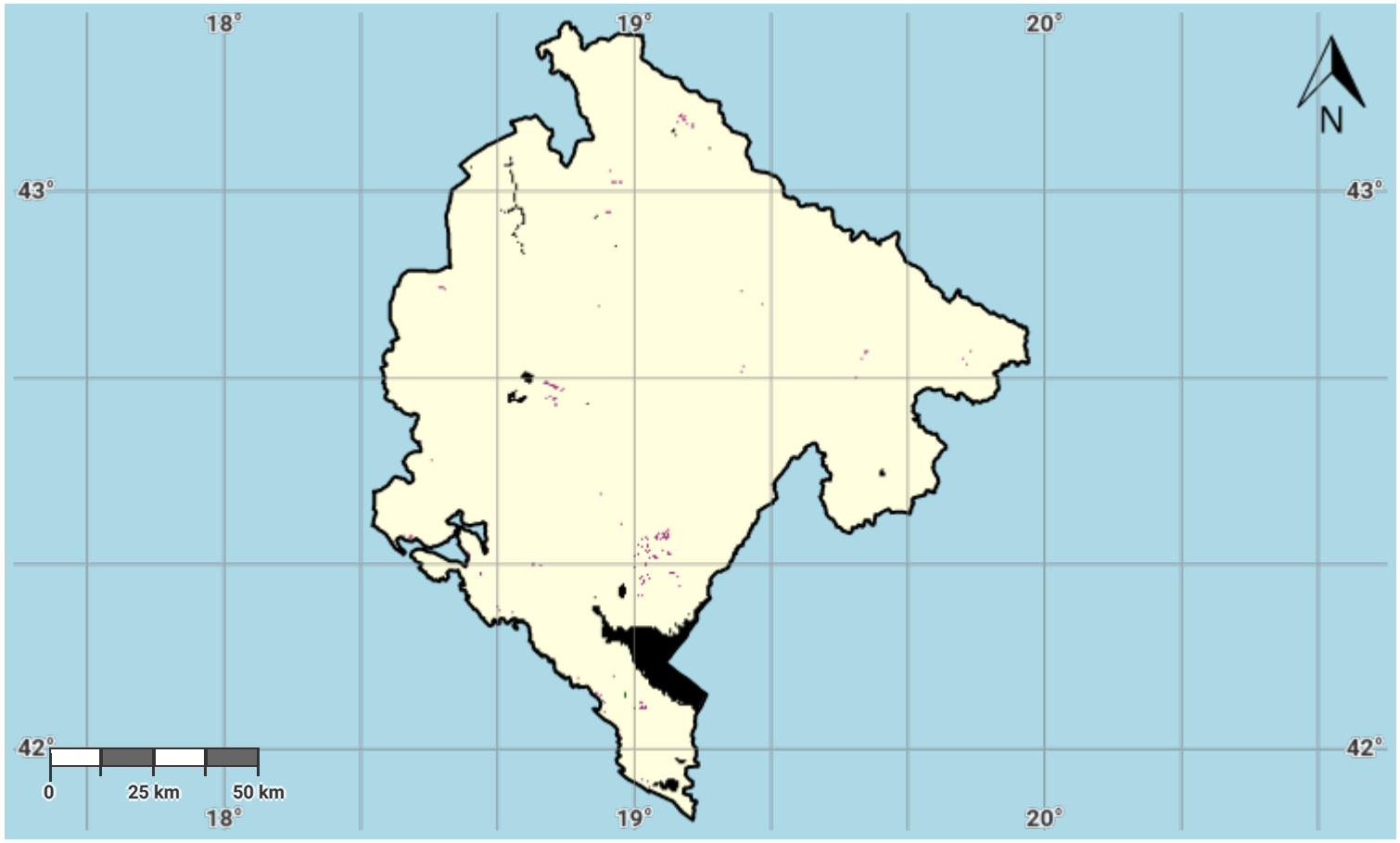
- United Nations Clear Map, United Nations Geospatial.
- International Soil Reference and Information Centre (ISRIC) SoilGrids250m dataset. URL: https://www.isric.org/explore/soilgrids

Montenegro – SO1-3.M7

Soil organic carbon degradation in the reporting period



Legend

- No data
- Degradation
- Stable
- Improvement
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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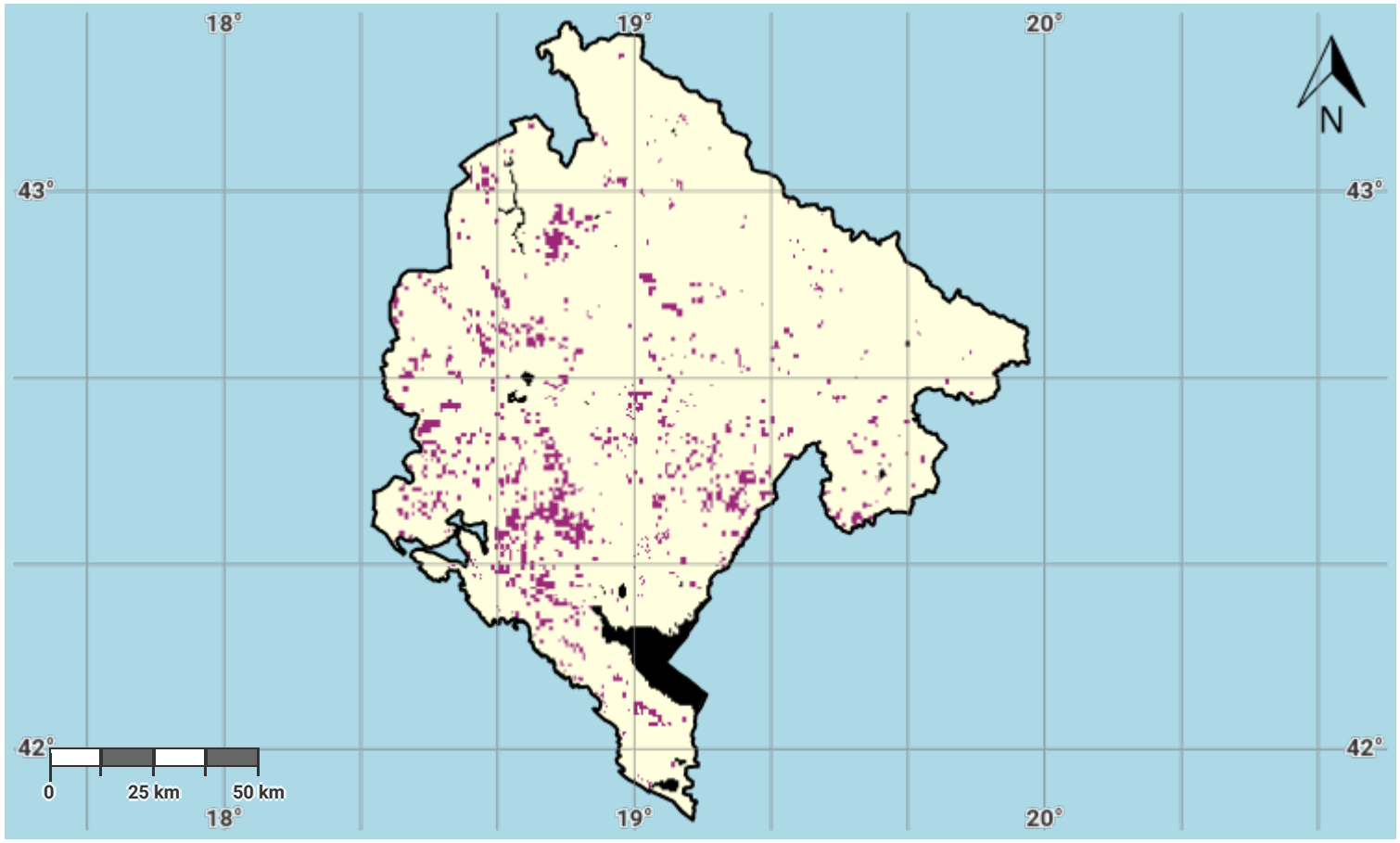
Montenegro – SO1-4.M1

Proportion of land that is degraded over total land area (SDG Indicator 15.3.1) in the baseline period



Legend

- No data
- Degradation
- Not degraded
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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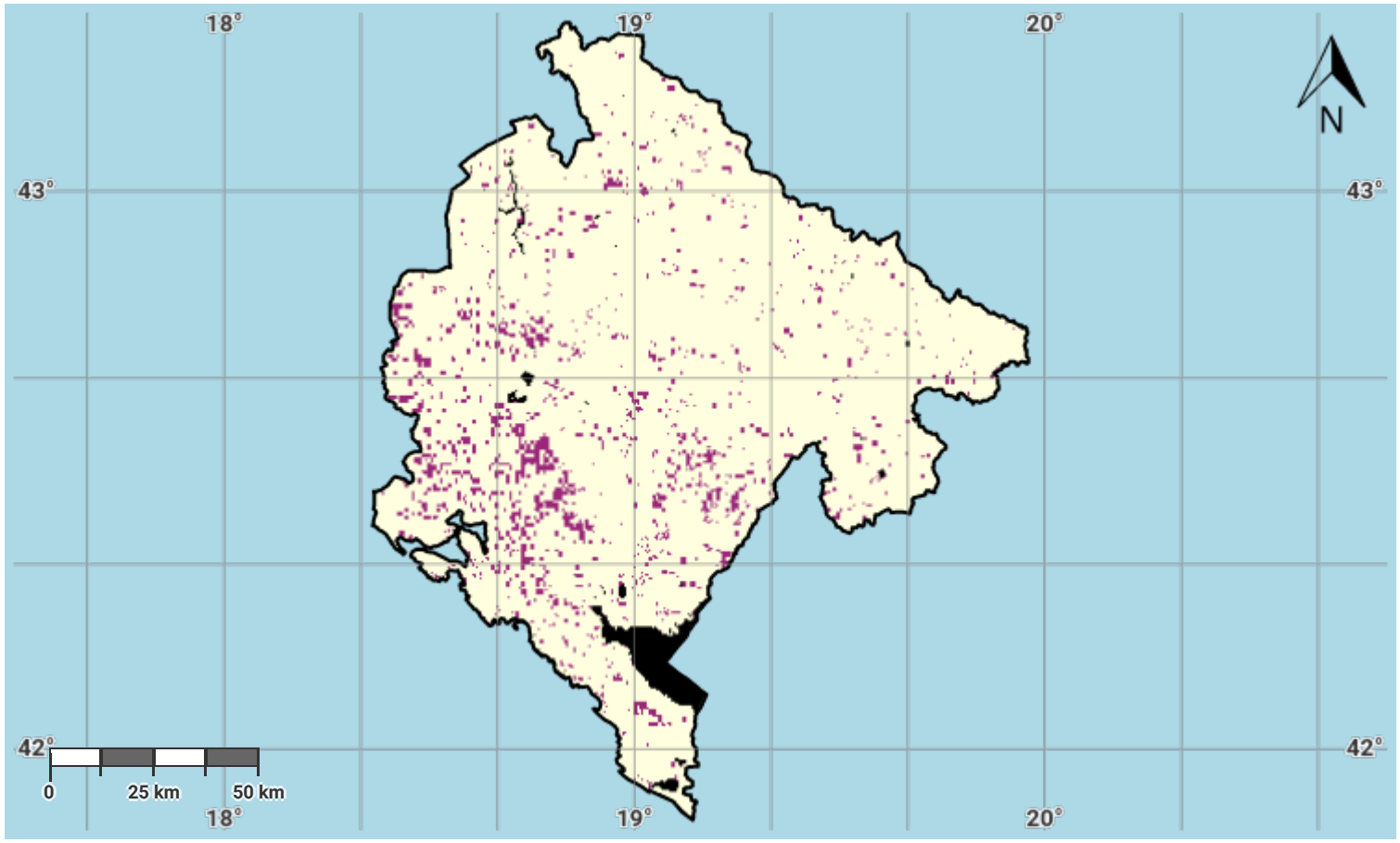
Source Data Credits

- United Nations Clear Map, United Nations Geospatial.
- Derived based on the methodology in the Good Practice Guidance Version 2 for Sustainable Development Goal (SDG) indicator 15.3.1 - Proportion of land that is degraded over total land area. URL: https://www.unccd.int/publications/good-practice-guidance-sdg-indicator-1531-proportion-land-degraded-over-total-land

Montenegro – SO1-4.M2

Proportion of land that is degraded over total land area (SDG Indicator 15.3.1) in the reporting period



Legend

- No data
- Degradation
- Not degraded
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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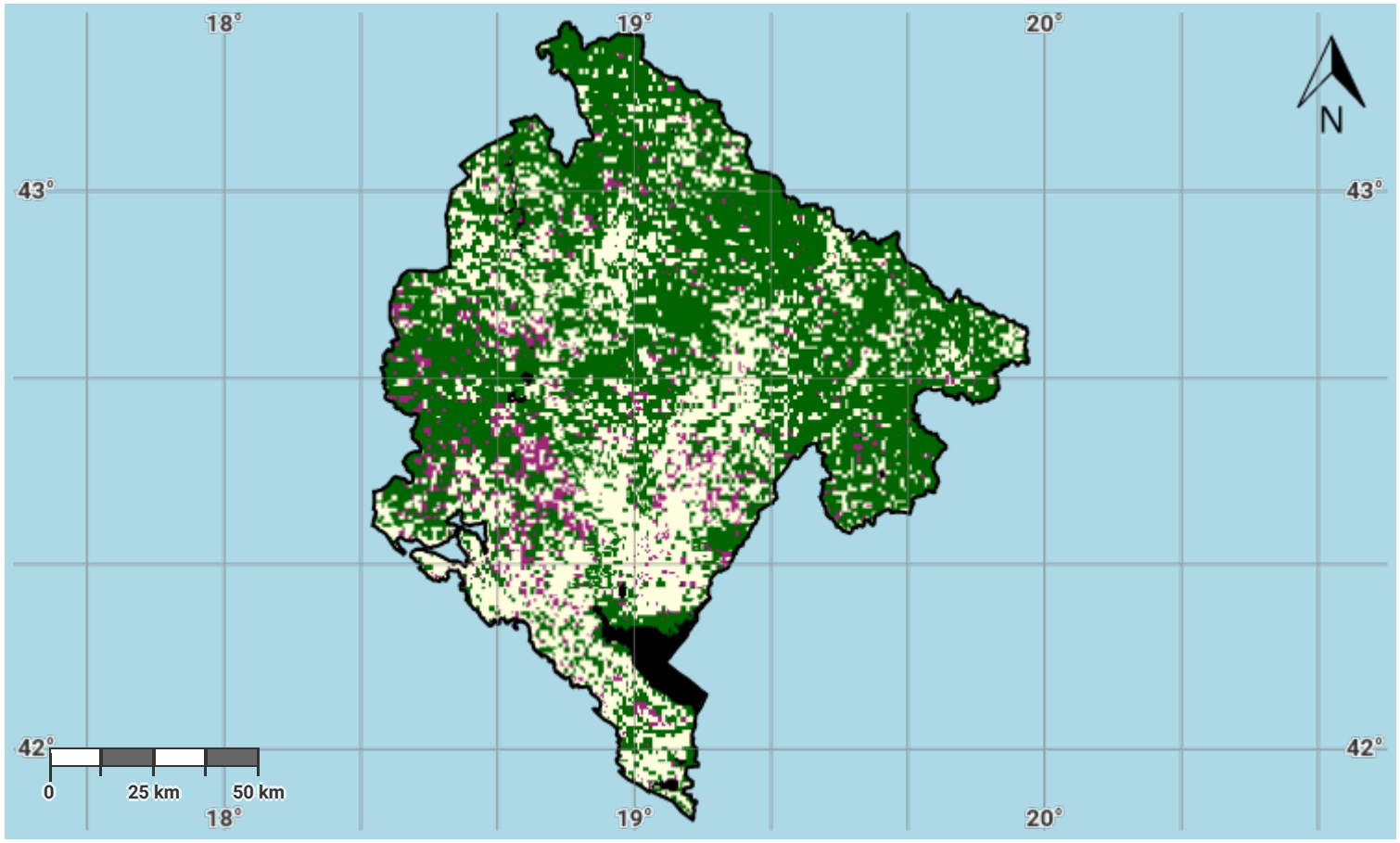
- Derived based on the methodology in the Good Practice Guidance Version 2 for Sustainable Development Goal (SDG) indicator 15.3.1 - Proportion of land that is degraded over total land area. URL: https://www.unccd.int/publications/good-practice-guidance-sdg-indicator-1531-proportion-land-degraded-over-total-land

Montenegro – SO1-4.M3

Progress towards Land Degradation Neutrality (LDN) in the reporting period



Legend

- No data
- Degradation
- Stable
- Improvement
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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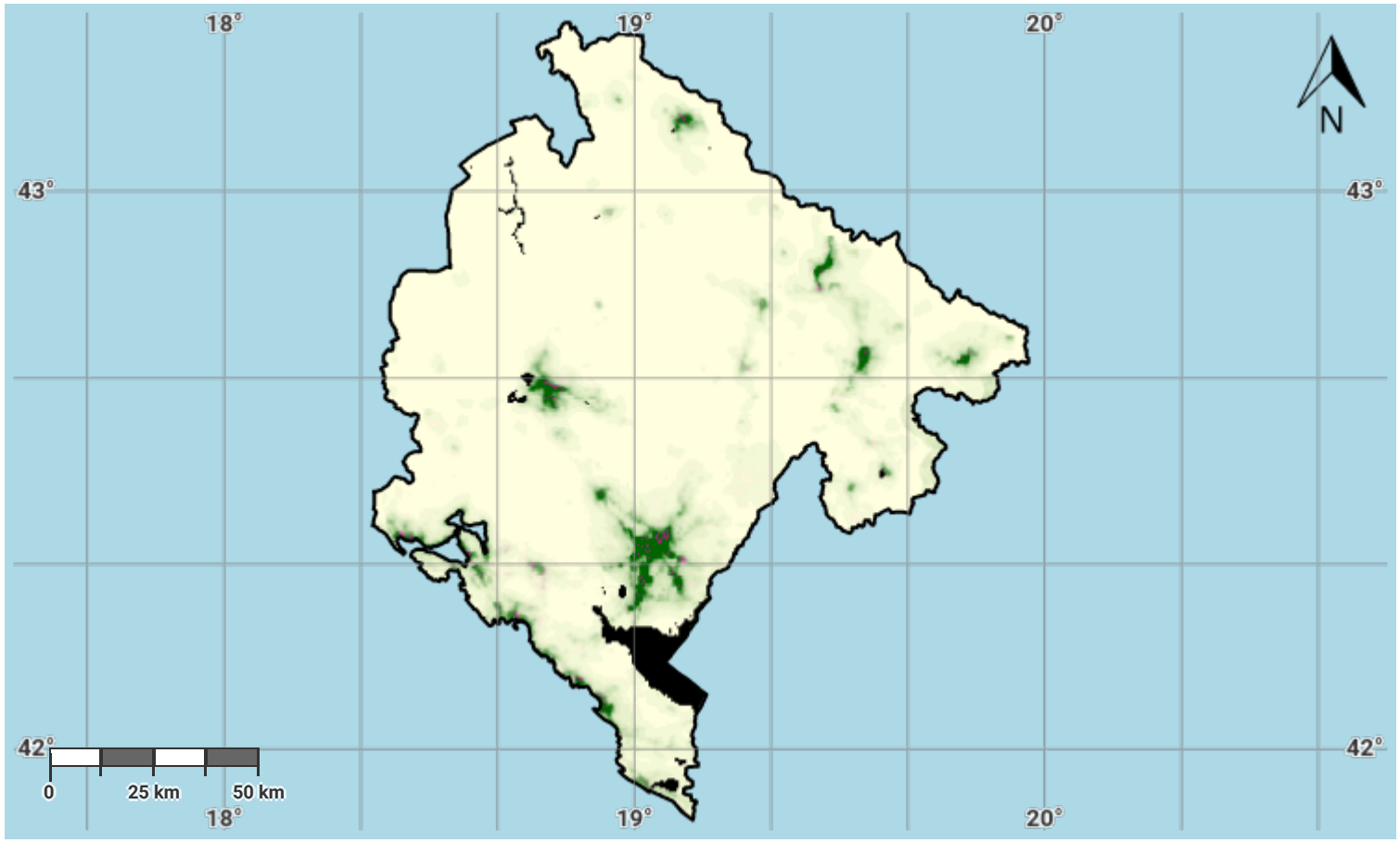
- Derived based on the methodology in the Good Practice Guidance Version 2 for Sustainable Development Goal (SDG) indicator 15.3.1 - Proportion of land that is degraded over total land area. URL: https://www.unccd.int/publications/good-practice-guidance-sdg-indicator-1531-proportion-land-degraded-over-total-land

Montenegro – SO2-3.M1

Total Population exposed to land degradation (baseline)



Legend

- No data
- Population exposed to degradation (number of people, total): 0 - 450
- No land degradation
- Population not exposed to degradation (number of people, total): 0 - 450
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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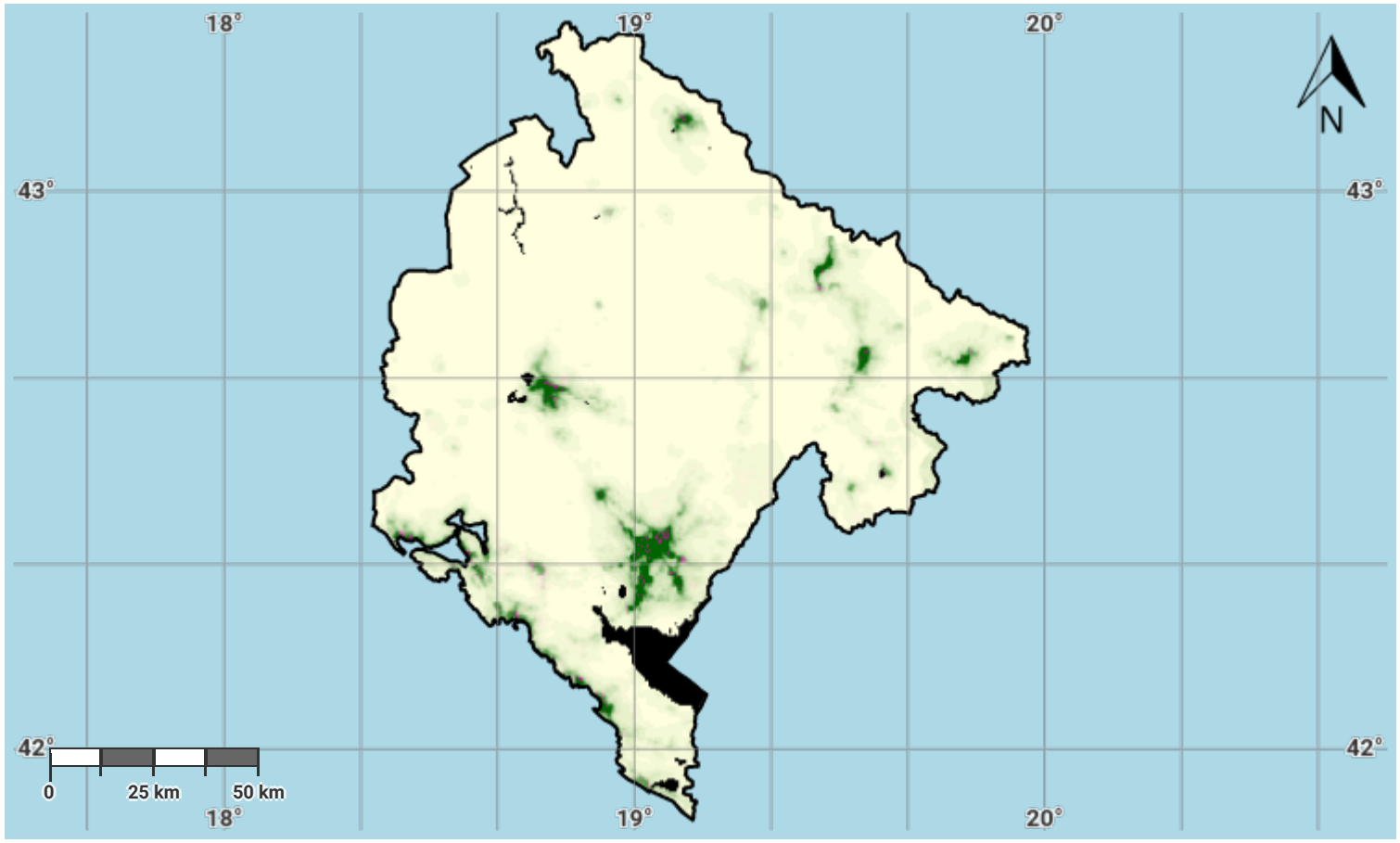
Source Data Credits

- United Nations Clear Map, United Nations Geospatial.
- WorldPop project URL: https://www.worldpop.org

Montenegro – SO2-3.M2

Female Population exposed to land degradation (baseline)



Legend

- No data
- Population exposed to degradation (number of people, female): 0 - 230
- No land degradation
- Population not exposed to degradation (number of people, female): 0 - 230
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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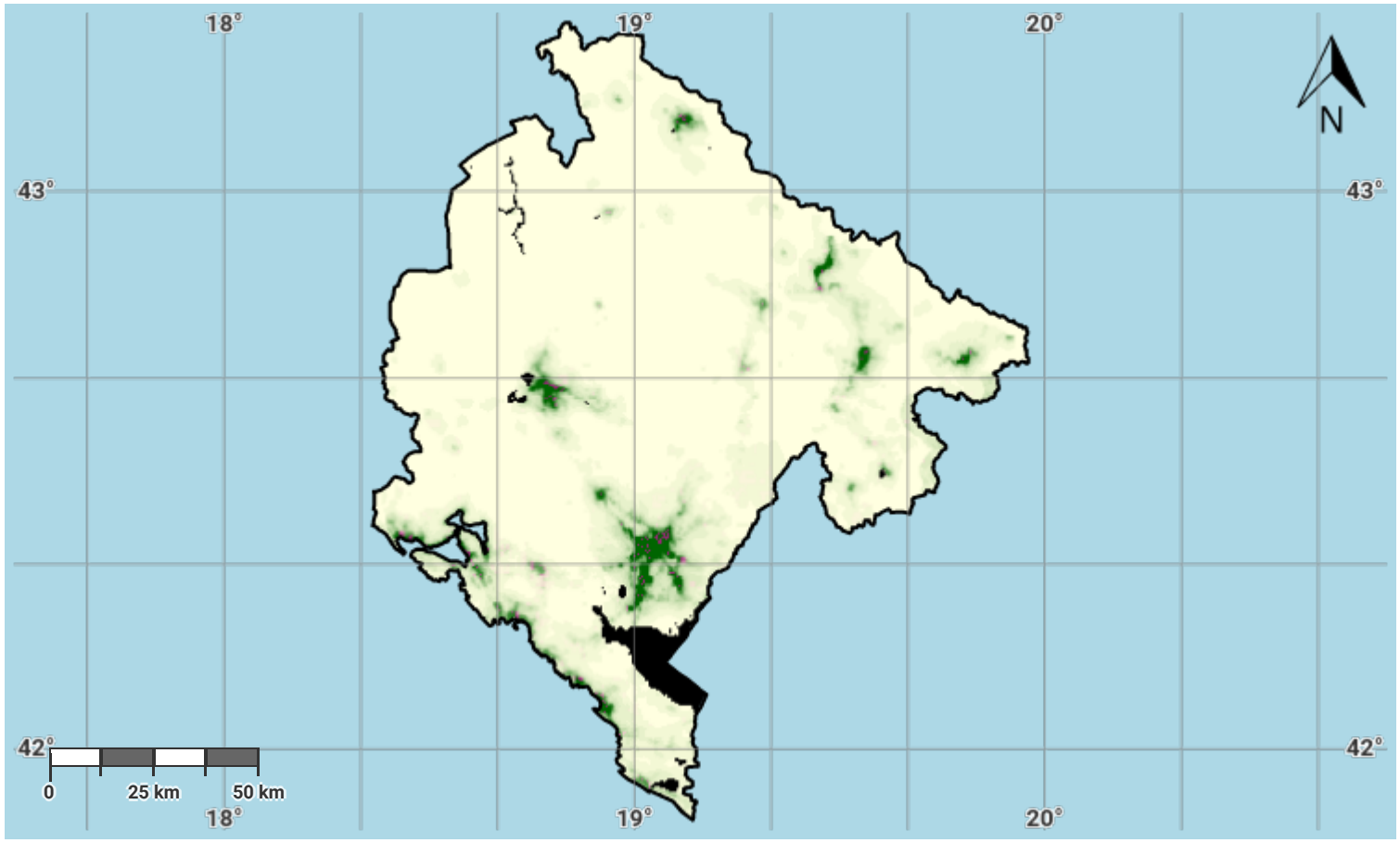
Source Data Credits

- United Nations Clear Map, United Nations Geospatial.
- WorldPop project URL: https://www.worldpop.org

Montenegro – SO2-3.M3

Male Population exposed to land degradation (baseline)



Legend

- No data
- Population exposed to degradation (number of people, male): 0 - 220
- No land degradation
- Population not exposed to degradation (number of people, male): 0 - 220
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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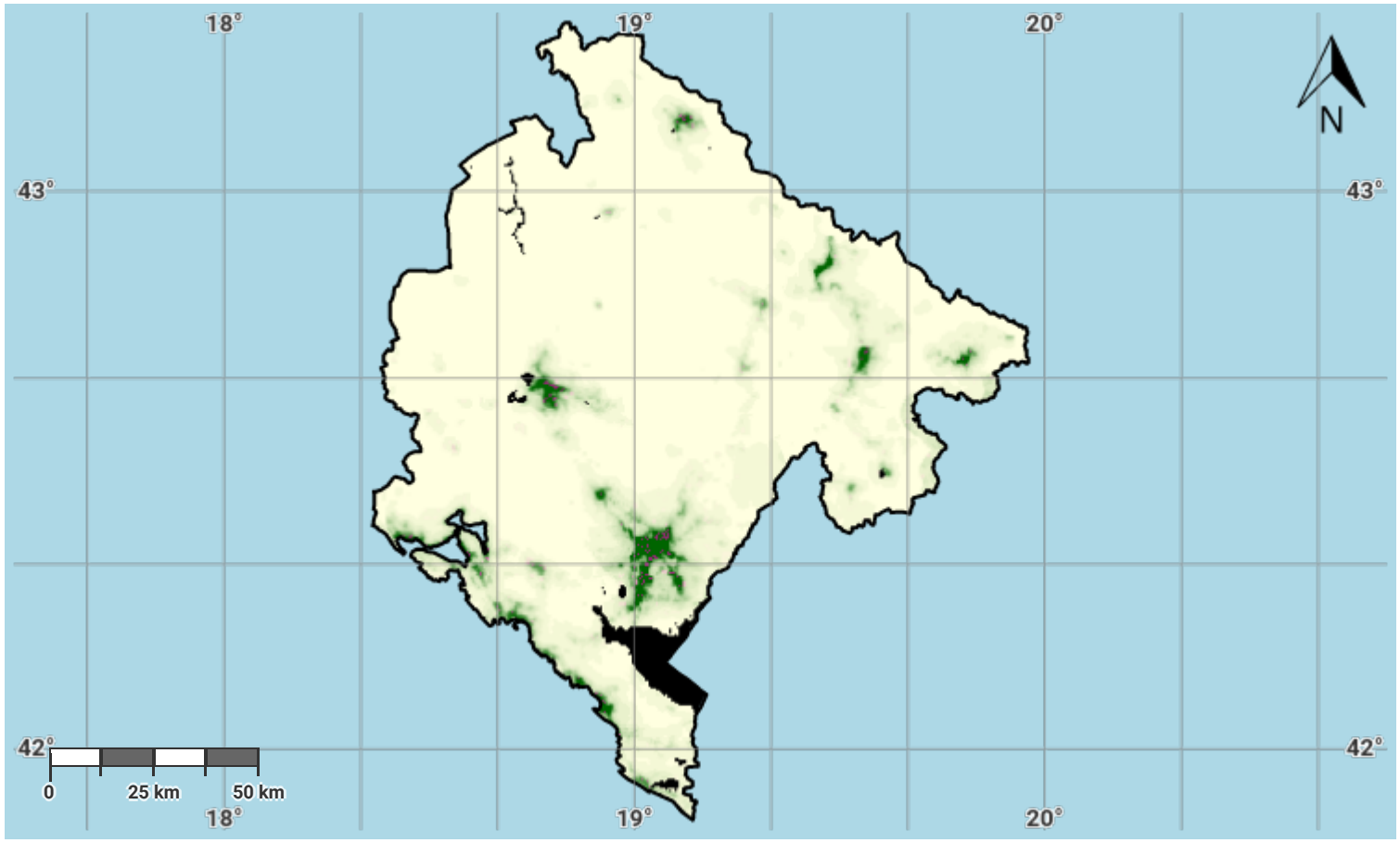
Source Data Credits

- United Nations Clear Map, United Nations Geospatial.
- WorldPop project URL: https://www.worldpop.org

Montenegro – SO2-3.M4

Total Population exposed to land degradation (reporting)



Legend

- No data
- Population exposed to degradation (number of people, total): 0 - 470
- No land degradation
- Population not exposed to degradation (number of people, total): 0 - 470
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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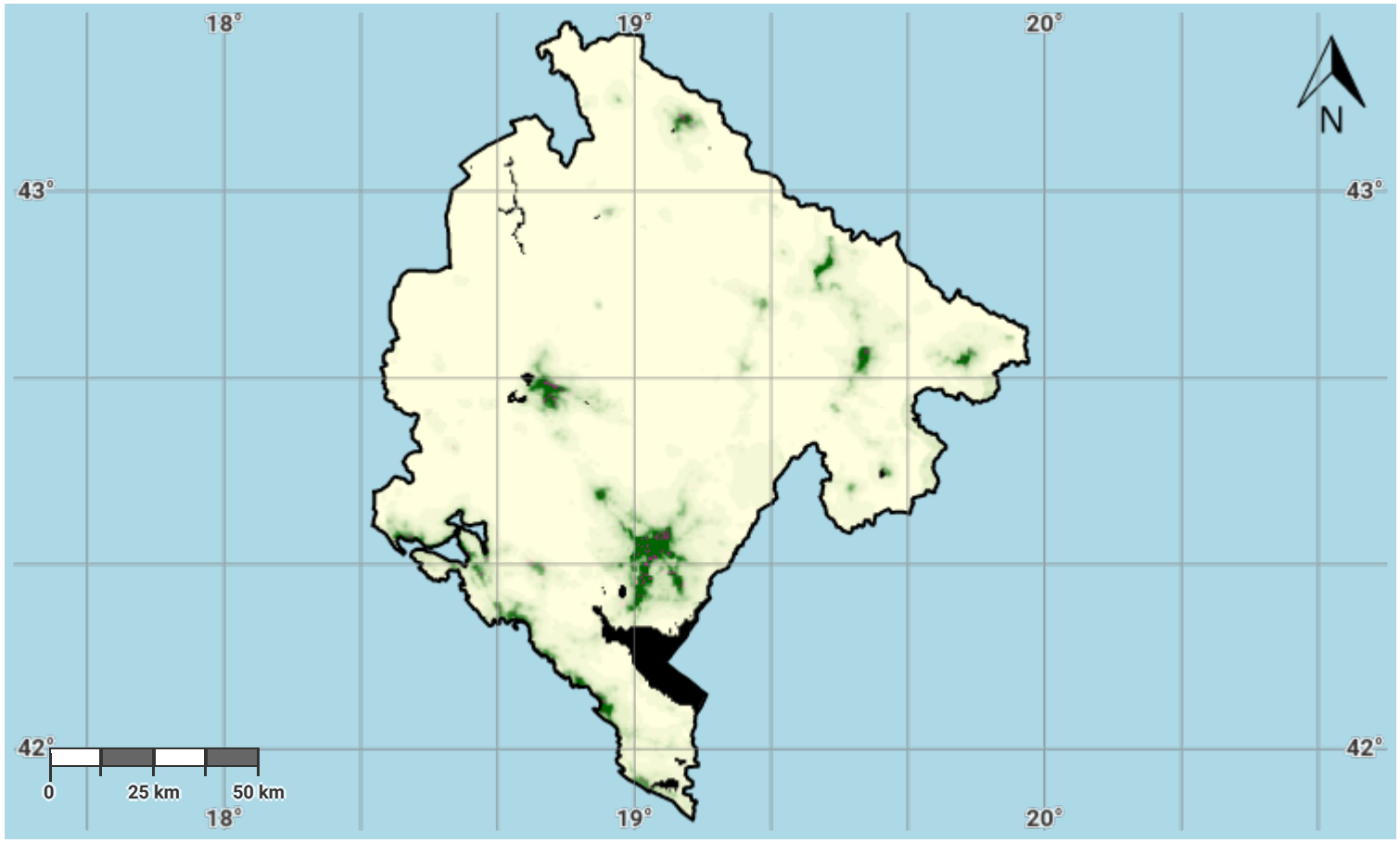
Source Data Credits

- United Nations Clear Map, United Nations Geospatial.
- WorldPop project URL: https://www.worldpop.org

Montenegro – SO2-3.M5

Female Population exposed to land degradation (reporting)



Legend

- No data
- Population exposed to degradation (number of people, female): 0 - 240
- No land degradation
- Population not exposed to degradation (number of people, female): 0 - 240
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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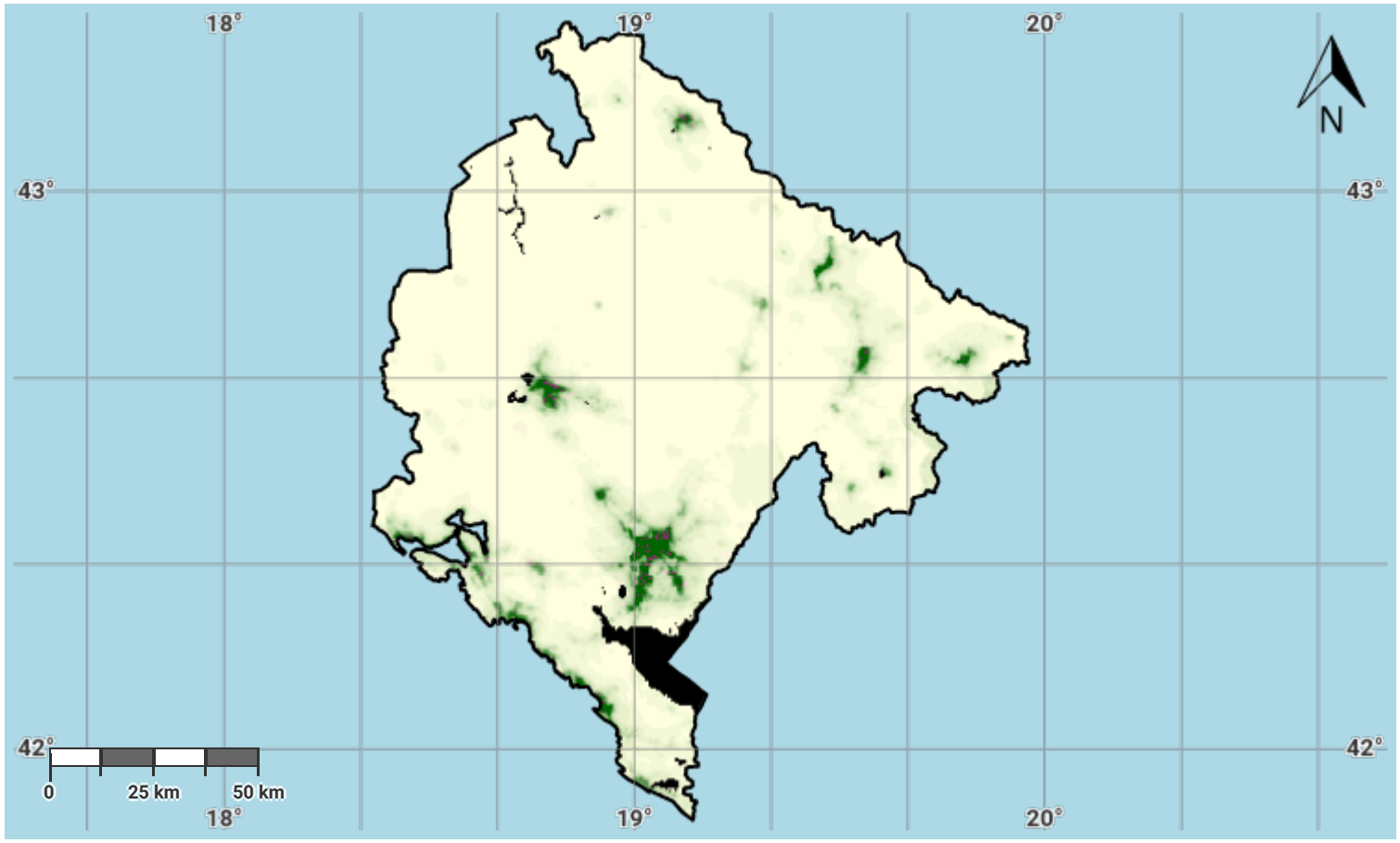
Source Data Credits

- United Nations Clear Map, United Nations Geospatial.
- WorldPop project URL: https://www.worldpop.org

Montenegro – SO2-3.M6

Male Population exposed to land degradation (reporting)



Legend

- No data
- Population exposed to degradation (number of people, male): 0 - 230
- No land degradation
- Population not exposed to degradation (number of people, male): 0 - 230
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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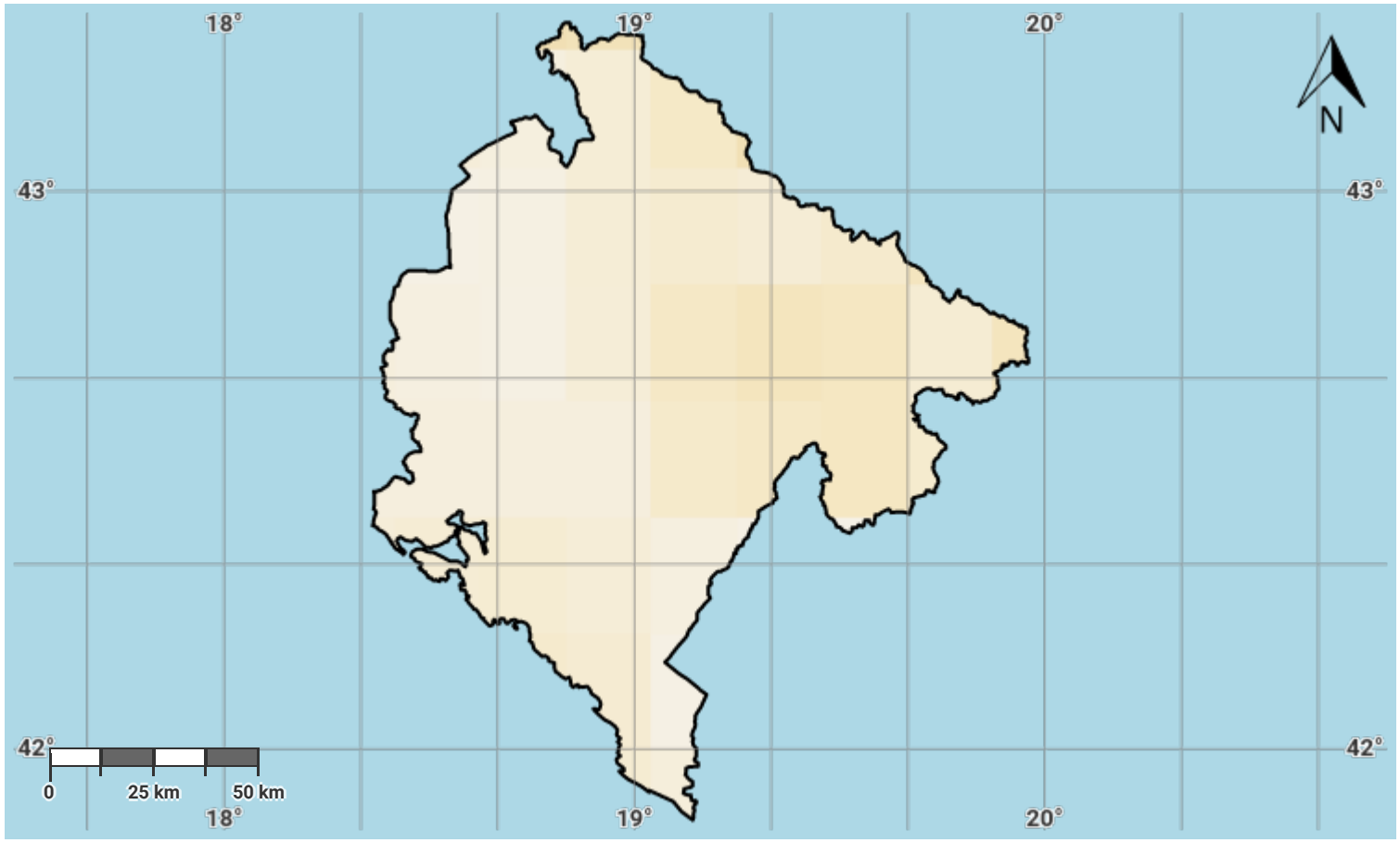
- WorldPop project URL: https://www.worldpop.org

Montenegro – SO3-1.M1

Drought hazard in first epoch of baseline period



Legend

- No data
- Extreme drought
- Severe drought
- Moderate drought
- Mild drought
- Normal
- Mildly wet
- Moderately wet
- Severely wet
- Extremely wet
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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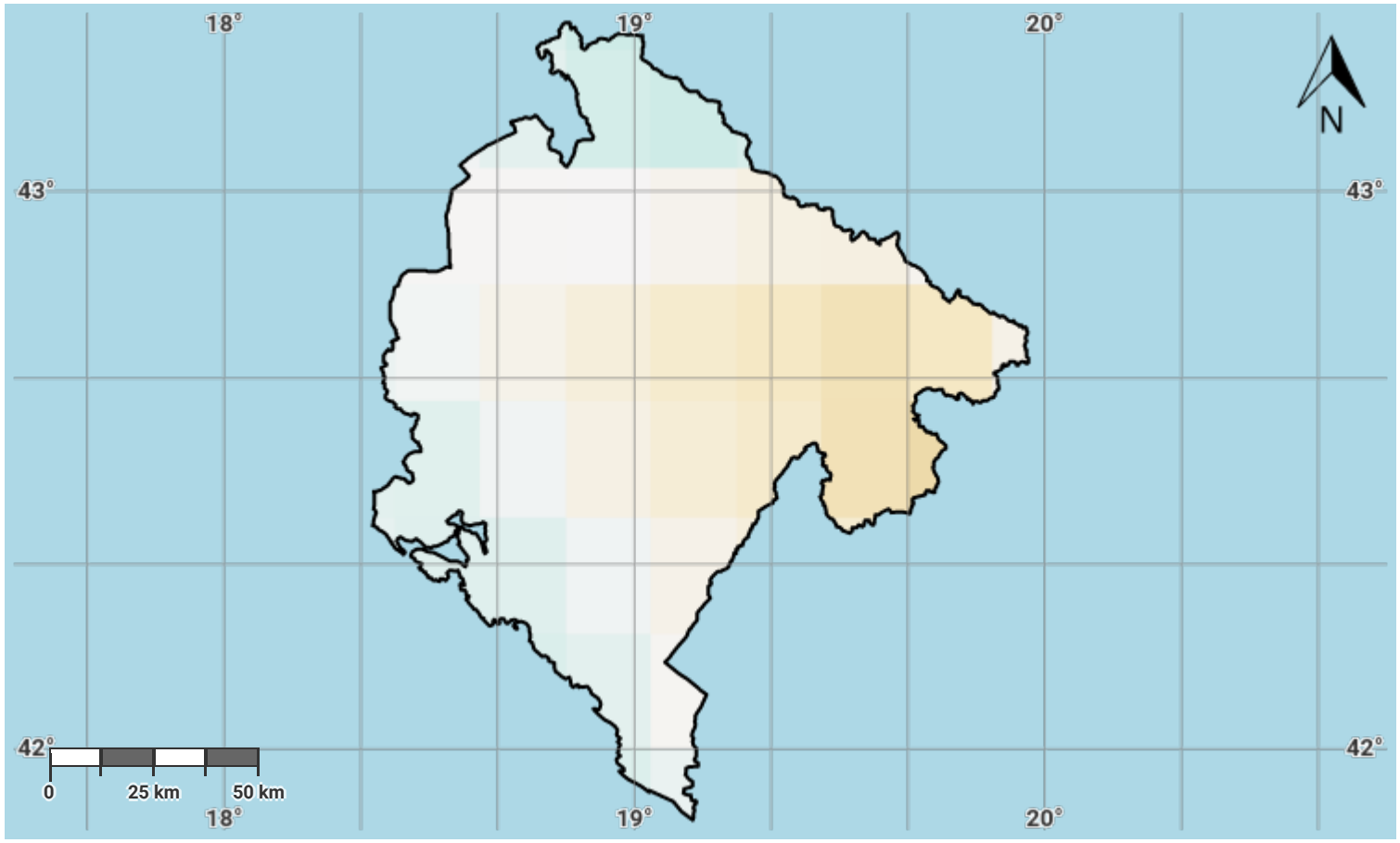
Source Data Credits

- United Nations Clear Map, United Nations Geospatial.
- Global Precipitation Climatology Centre (GPCC) monthly precipitation products,1982–present. URL: https://opendata.dwd.de/climate_environment/GPCC/html/gpcc_monitoring_v6_doi_download.html

Montenegro – SO3-1.M2

Drought hazard in second epoch of baseline period



Legend

- No data
- Extreme drought
- Severe drought
- Moderate drought
- Mild drought
- Normal
- Mildly wet
- Moderately wet
- Severely wet
- Extremely wet
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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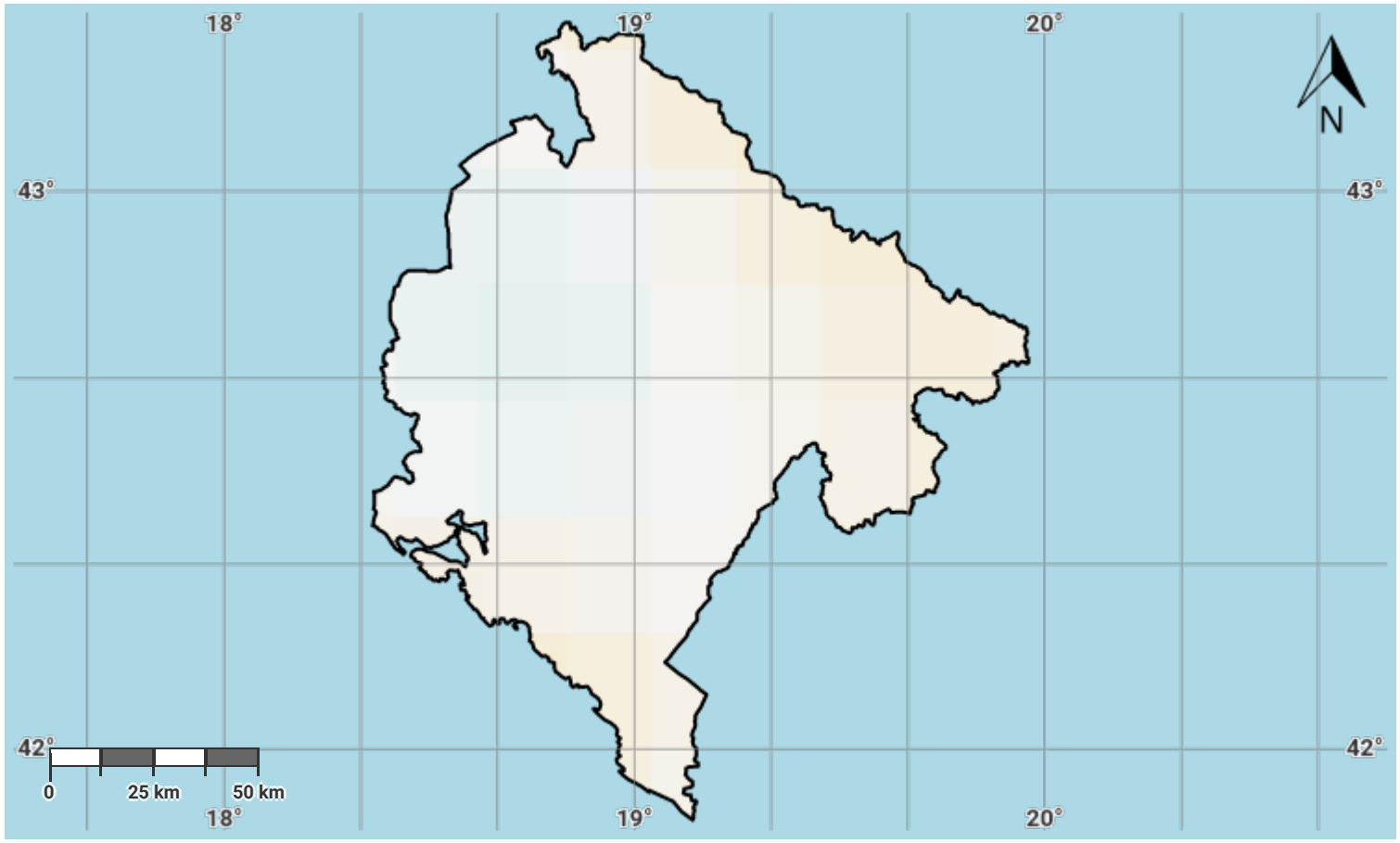
Montenegro – SO3-1.M3

Drought hazard in third epoch of baseline period



Legend

- No data
- Extreme drought
- Severe drought
- Moderate drought
- Mild drought
- Normal
- Mildly wet
- Moderately wet
- Severely wet
- Extremely wet
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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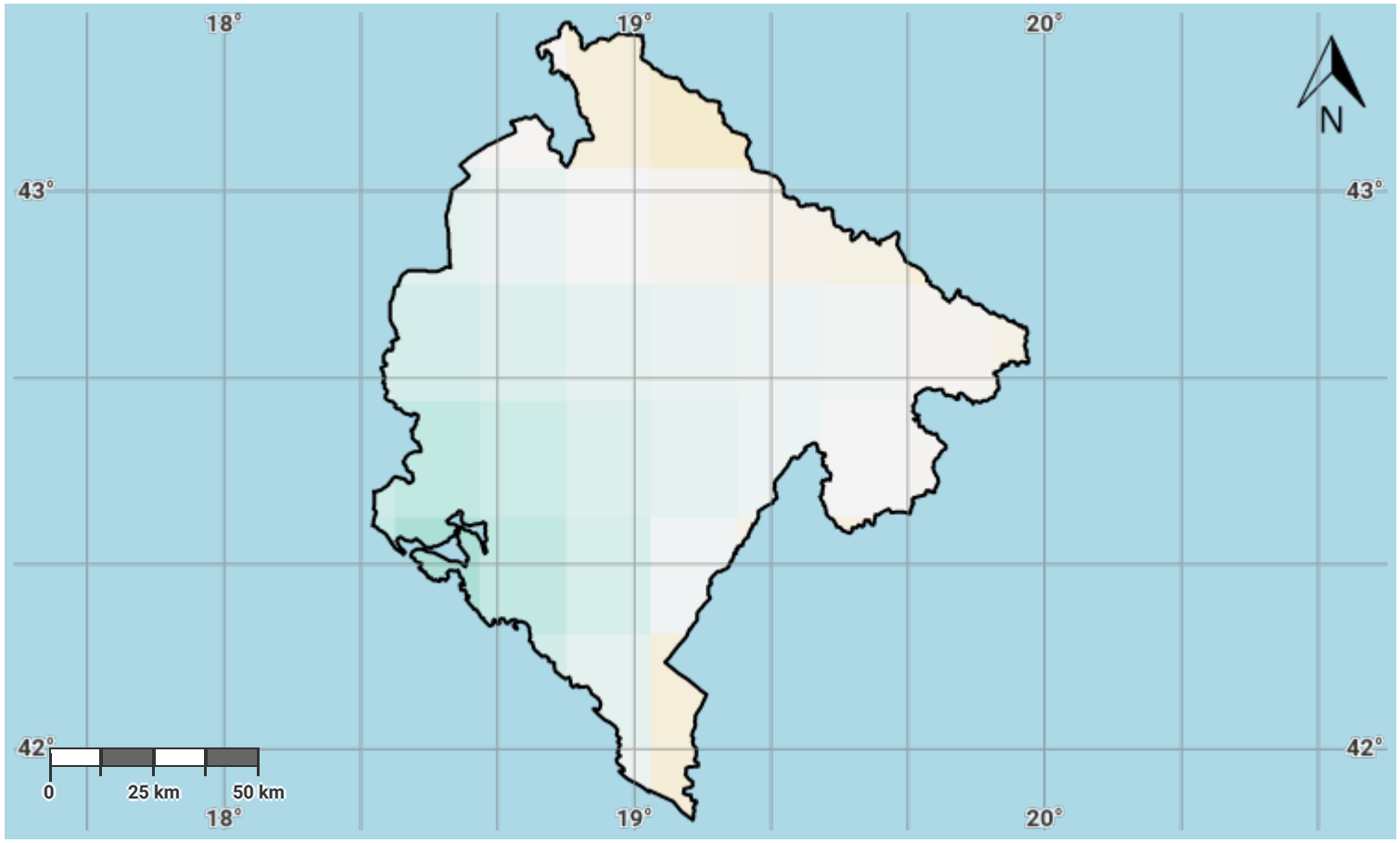
- Global Precipitation Climatology Centre (GPCC) monthly precipitation products,1982–present. URL: https://opendata.dwd.de/climate_environment/GPCC/html/gpcc_monitoring_v6_doi_download.html

Montenegro – SO3-1.M4

Drought hazard in fourth epoch of baseline period



Legend

- No data
- Extreme drought
- Severe drought
- Moderate drought
- Mild drought
- Normal
- Mildly wet
- Moderately wet
- Severely wet
- Extremely wet
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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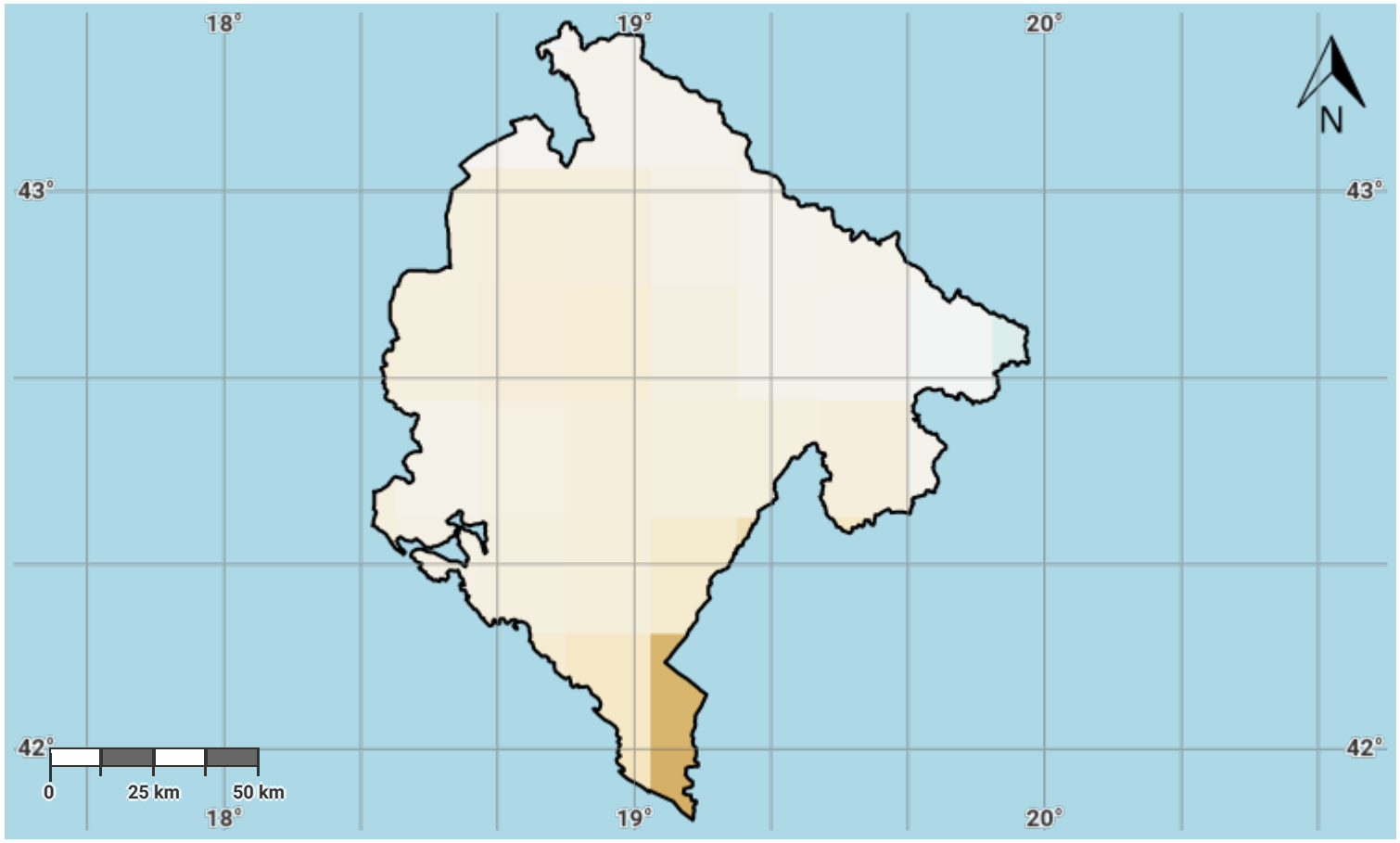
- Global Precipitation Climatology Centre (GPCC) monthly precipitation products,1982–present. URL: https://opendata.dwd.de/climate_environment/GPCC/html/gpcc_monitoring_v6_doi_download.html

Montenegro – SO3-1.M5

Drought hazard in the reporting period



Legend

- No data
- Extreme drought
- Severe drought
- Moderate drought
- Mild drought
- Normal
- Mildly wet
- Moderately wet
- Severely wet
- Extremely wet
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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Source Data Credits

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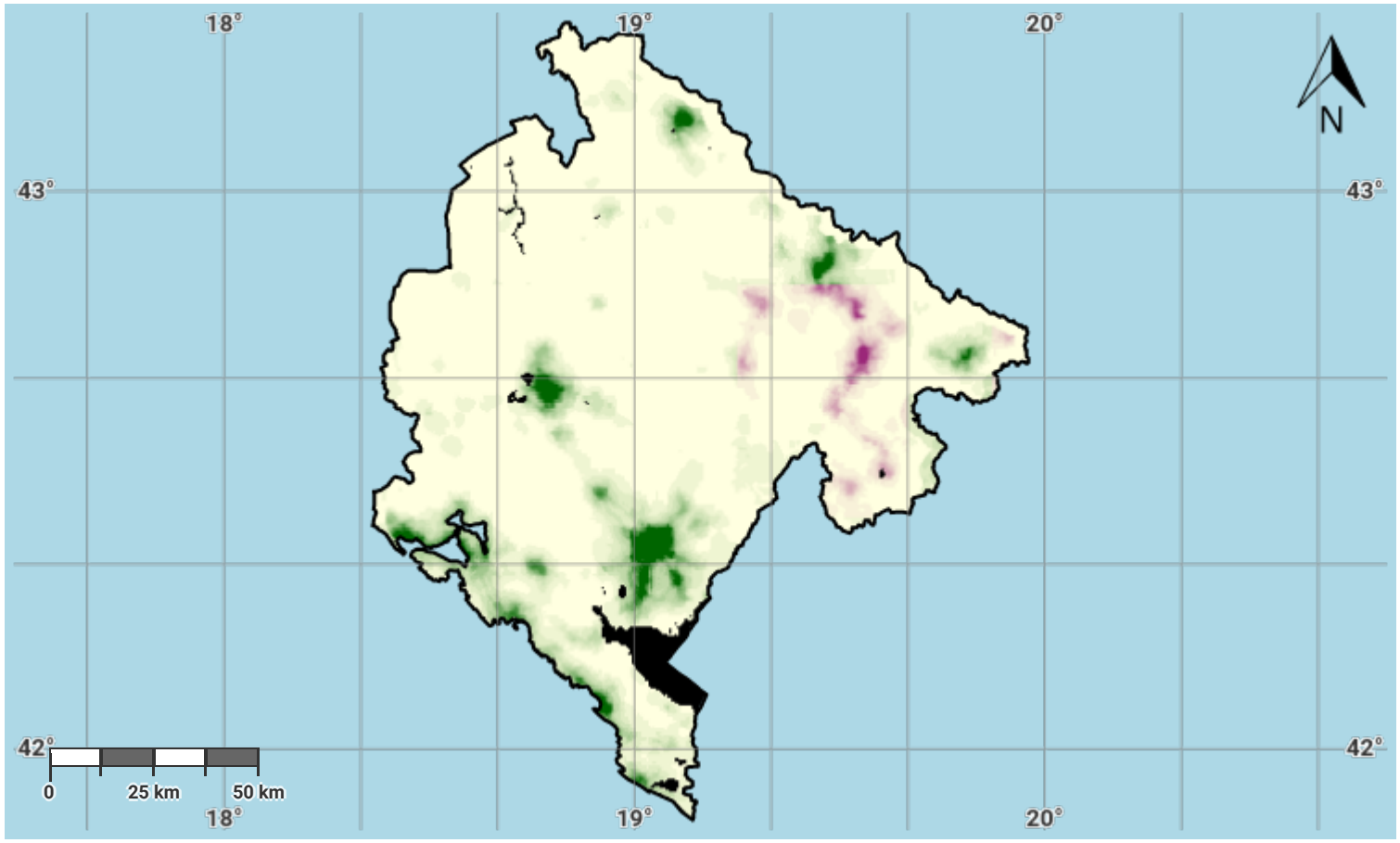
Montenegro – SO3-2.M1

Drought exposure in first epoch of baseline period



Legend

- No data
- Population exposed to drought (number of people, total): 0 - 330
- No drought
- Population not exposed to drought (number of people, total): 0 - 330
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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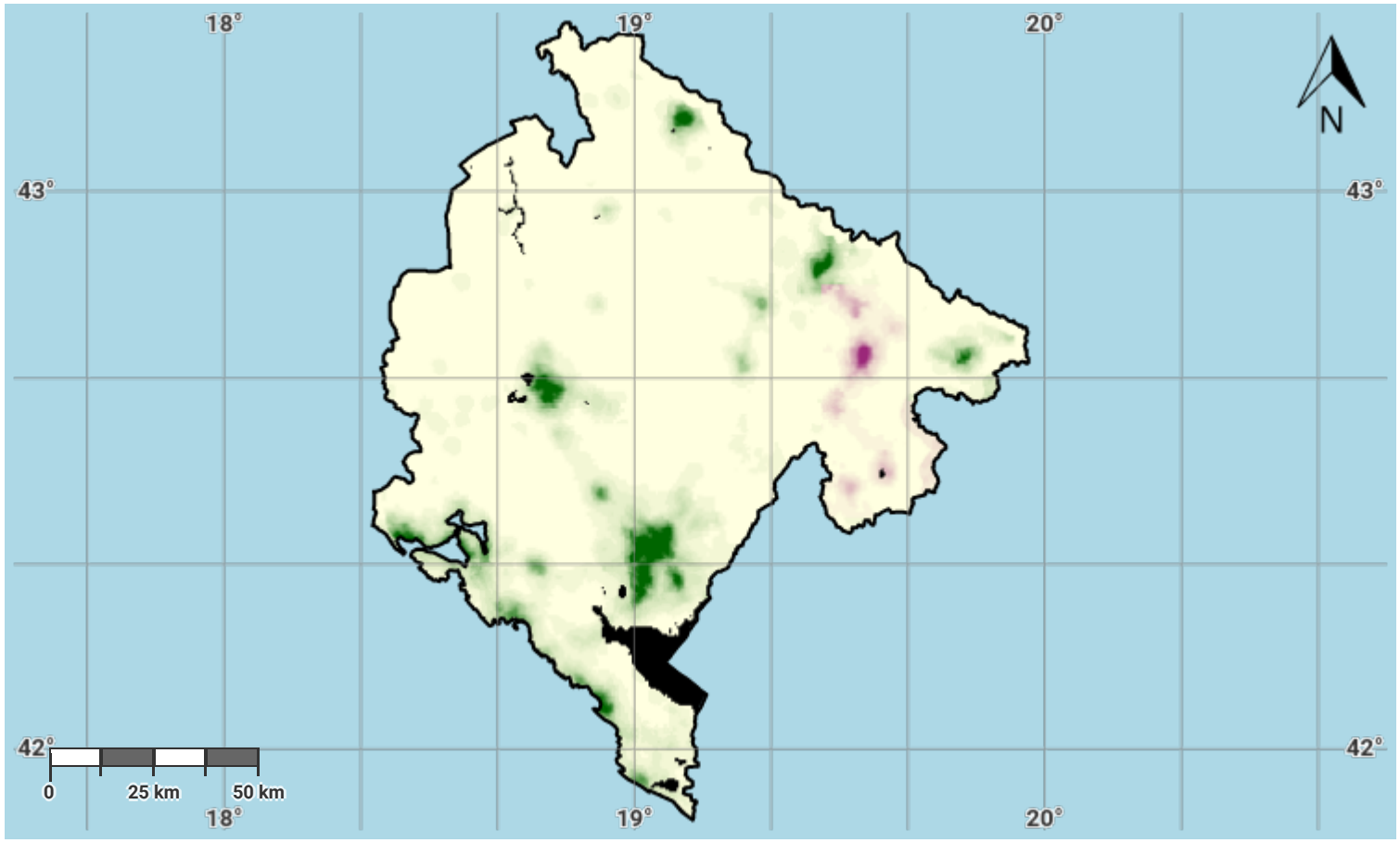
Montenegro – SO3-2.M2

Drought exposure in second epoch of baseline period



Legend

- No data
- Population exposed to drought (number of people, total): 0 - 430
- No drought
- Population not exposed to drought (number of people, total): 0 - 430
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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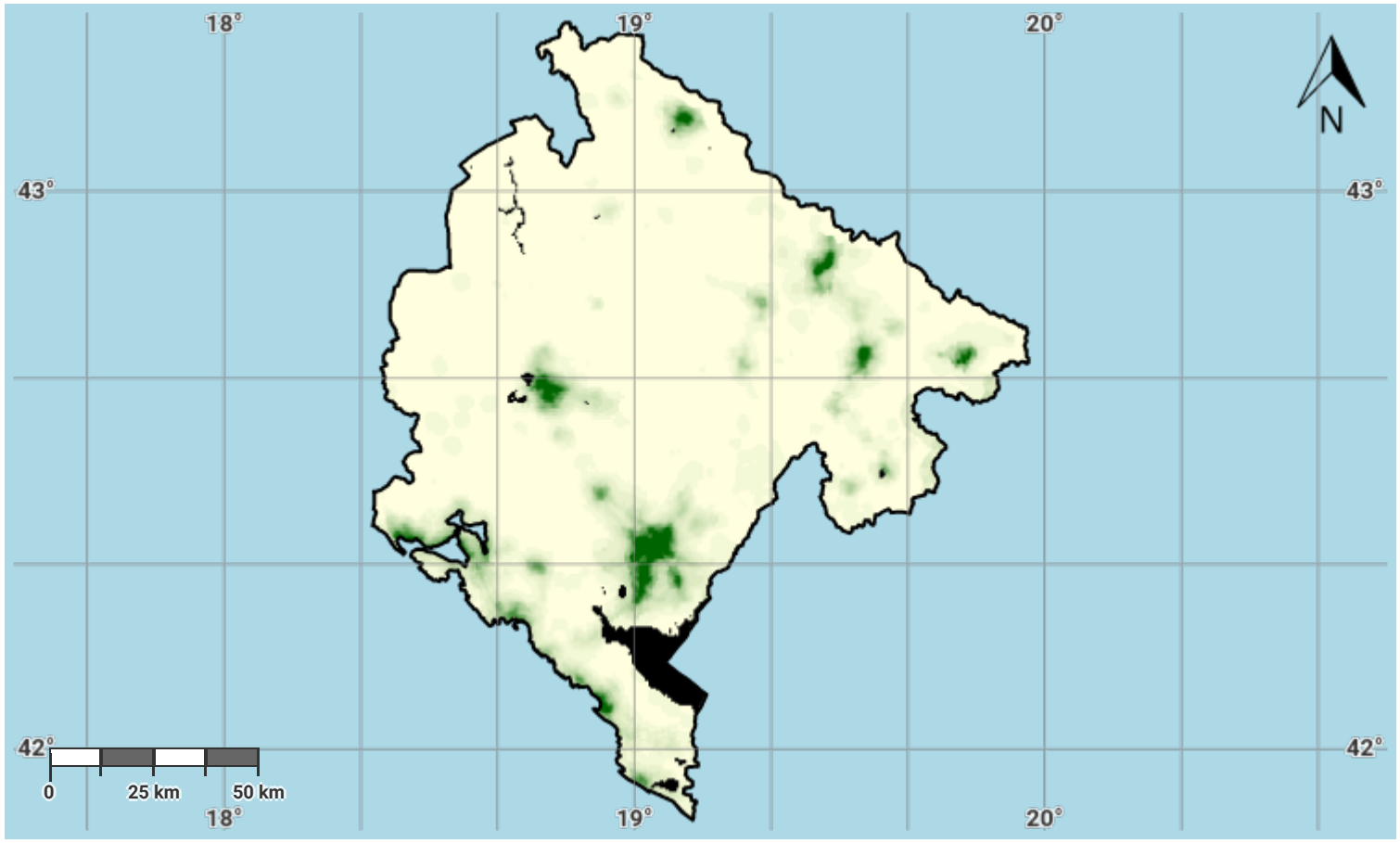
Montenegro – SO3-2.M3

Drought exposure in third epoch of baseline period



Legend

- No data
- Population exposed to drought (number of people, total): 0 - 450
- No drought
- Population not exposed to drought (number of people, total): 0 - 450
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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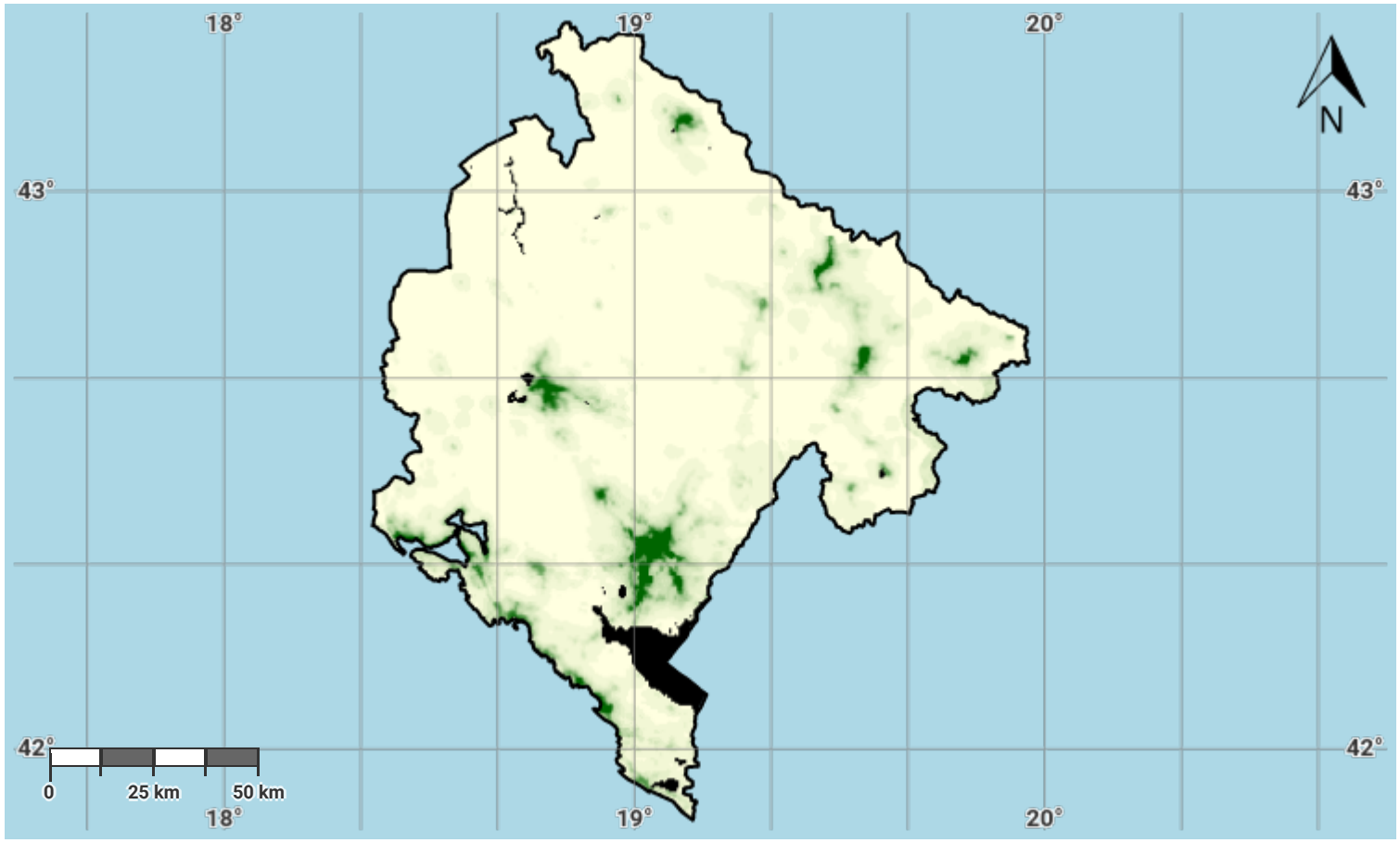
Montenegro – SO3-2.M4

Drought exposure in fourth epoch of baseline period



Legend

- No data
- Population exposed to drought (number of people, total): 0 - 420
- No drought
- Population not exposed to drought (number of people, total): 0 - 420
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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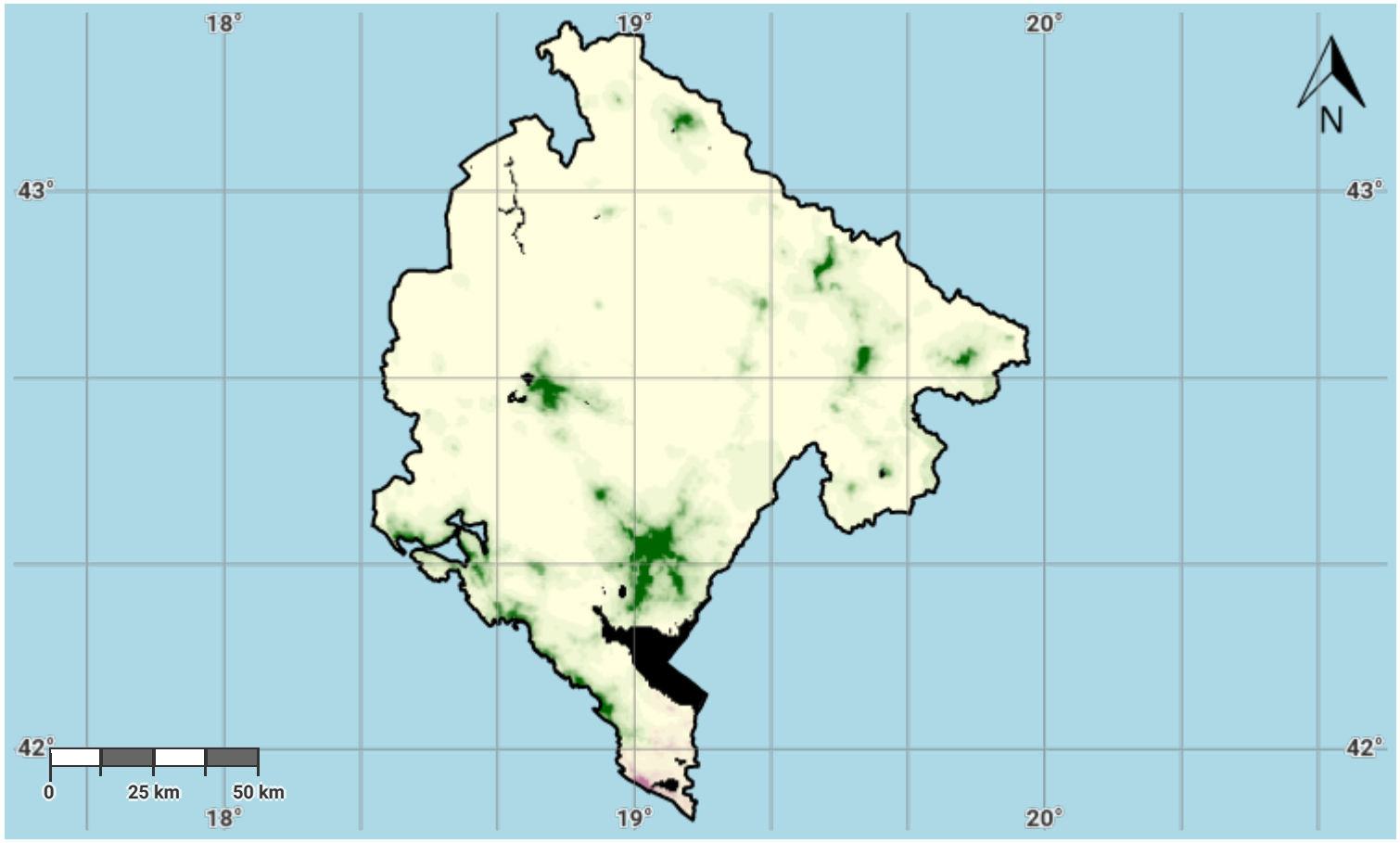
Montenegro – SO3-2.M5

Drought exposure in the reporting period



Legend

- No data
- Population exposed to drought (number of people, total): 0 - 390
- No drought
- Population not exposed to drought (number of people, total): 0 - 390
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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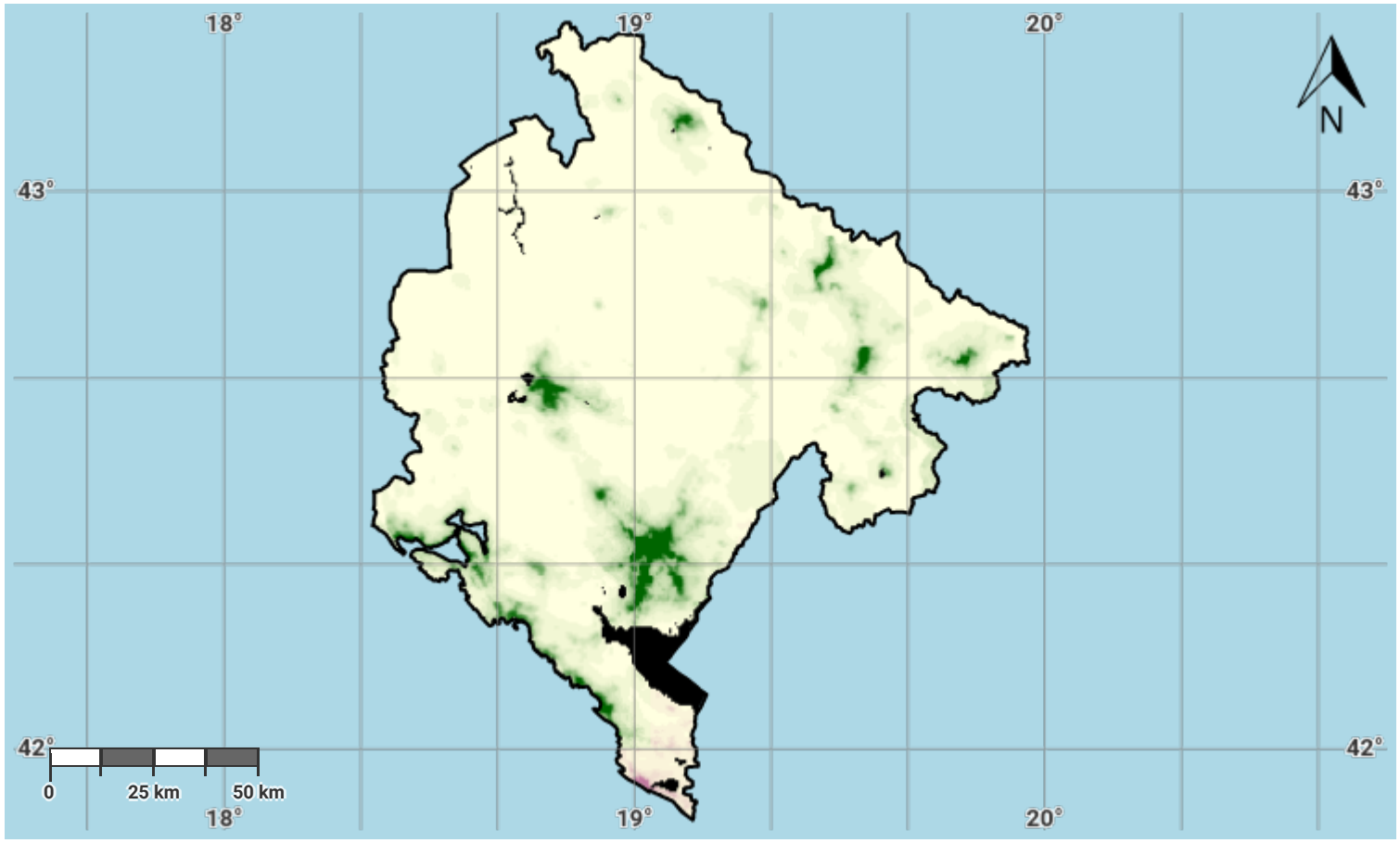
Montenegro – SO3-2.M6

Female drought exposure in the reporting period



Legend

- No data
- Population exposed to drought (number of people, female): 0 - 200
- No drought
- Population not exposed to drought (number of people, female): 0 - 200
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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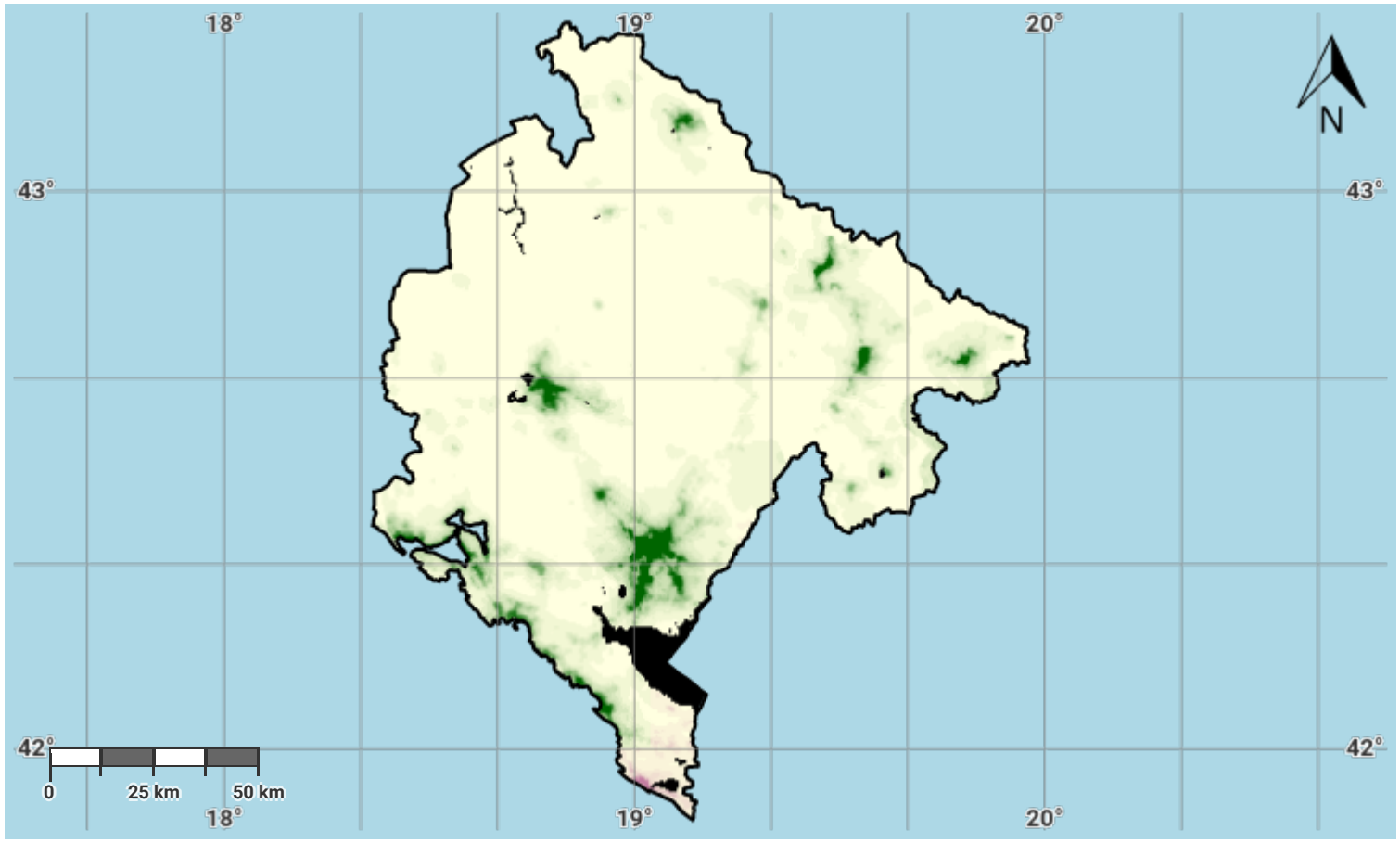
Montenegro – SO3-2.M7

Male drought exposure in the reporting period



Legend

- No data
- Population exposed to drought (number of people, male): 0 - 200
- No drought
- Population not exposed to drought (number of people, male): 0 - 200
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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