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

Report from Ethiopia

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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	1 121 248	7 723	1 128 971	
2 005	1 121 393	7 578	1 128 971	
2 010	1 121 364	7 607	1 128 971	
2 015	1 121 331	7 640	1 128 971	
2 019	1 121 364	7 607	1 128 971	

Land cover legend and transition matrix

SO1-1.T2: Key Degradation Processes

Degradation Process	Starting Land Cover	Ending Land Cover

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	214 063	551 780	279 547	2 499	407	72 914	7 762	
2001	214 232	551 940	279 590	2 501	408	72 579	7 723	
2002	214 777	551 711	279 420	2 504	410	72 537	7 612	
2003	215 808	551 348	278 978	2 506	413	72 313	7 605	
2004	218 900	550 684	277 126	2 519	417	71 744	7 581	
2005	219 071	550 363	277 237	2 522	444	71 758	7 578	
2006	219 635	549 712	277 206	2 528	463	71 864	7 565	
2007	221 002	549 223	276 259	2 530	498	71 910	7 550	

	Tree-covered areas (km²)	Grasslands (km²)	Croplands (km²)	Wetlands (km²)	Artificial surfaces (km²)	Other Lands (km²)	Water bodies (km²)	No data (km²)
2008	221 938	548 511	275 888	2 502	532	71 990	7 611	
2009	222 079	548 159	276 036	2 512	571	72 022	7 592	
2010	222 133	547 936	276 218	2 507	623	71 948	7 608	
2011	222 391	547 835	275 951	2 511	673	72 006	7 604	
2012	222 467	547 863	275 833	2 510	726	71 976	7 597	
2013	223 027	547 761	275 286	2 504	781	72 005	7 608	
2014	224 819	547 181	274 035	2 504	837	71 955	7 641	
2015	224 816	547 171	274 003	2 504	883	71 955	7 641	
2016	227 401	545 968	272 743	2 514	946	71 779	7 621	
2017	228 879	545 139	272 122	2 524	978	71 703	7 627	
2018	235 877	540 889	269 987	2 603	979	71 021	7 617	
2019	241 222	537 433	268 464	2 719	1 048	70 479	7 607	
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)	210 614	1 936	1 479	10	19	2	3	214 063
Grasslands (km²)	5 523	542 493	2 780	20	95	851	18	551 780
Croplands (km²)	8 650	805	269 566	21	357	106	42	279 547
Wetlands (km²)	9	7	22	2 390	3	1	67	2 499
Artificial surfaces (km²)	0	0	0	0	407	0	0	407
Other Lands (km²)	2	1 912	111	2	1	70 830	56	72 914
Water bodies (km²)	18	17	45	61	0	166	7 455	7 762
Total	224 816	547 170	274 003	2 504	882	71 956	7 641	

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)	223 029	322	1 449	9	3	0	3	224 815
Grasslands (km²)	11 965	534 465	548	77	39	57	19	547 170
Croplands (km²)	6 172	1 150	266 421	129	119	7	5	274 003
Total	241 221	537 432	268 464	2 720	1 049	70 478	7 606	

	Tree-covered areas (km²)	Grasslands (km²)	Croplands (km²)	Wetlands (km²)	Artificial surfaces (km²)	Other Lands (km²)	Water bodies (km²)	Total land area (km²)
Wetlands (km²)	28	1	1	2 469	0	0	4	2 503
Artificial surfaces (km²)	0	0	0	0	883	0	0	883
Other Lands (km²)	27	1 492	43	4	5	70 379	5	71 955
Water bodies (km²)	0	2	2	32	0	35	7 570	7 641
Total	241 221	537 432	268 464	2 720	1 049	70 478	7 606	

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	5 743	0 .5
Land area with non-degraded land cover	1 123 227	99 .5
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	20 250	1 .8
Land area with stable land cover	1 105 324	97 .9
Land area with degraded land cover	3 396	0 .3
Land area with no land cover data	0	0 .0

General comments

The default data is supposed to be national data for land use/cover change in Ethiopia, which was triangulated with different data sources compared with the recent information for national forest monitoring systems. The data used for triangulation include national forest monitoring system from 2013-2019, global land outlook and Global forest resources assessment (FRA-2020). The forest cover in the default national data on praise-4 shows similar increasing trend with the data obtained from the national forest monitoring system from 2013-2019. However, the data for tree covered area as forest estimates in praise-4 has slight difference with the national resources assessment of the 2019. The estimate in either cases used different satellite for observation of the data and classification methodology for land use/land cover classification. There is also difference in types of land use and land cover classifications system used by different forest monitoring systems. The forest land cover estimate of FRA 2020 also shows slight increase in area than what was estimated in Praise -4 because of the difference in the types of satellite observations. With respect to the land classification system, in global forest resources assessment of 2020 indicated that forest, other wooded land, other land were used for classification while the UNCCD praise-4 has seven land use land cover classes based on IPPC guideline. Hence, data for tree covered area shows 240415 km2 for target year 2019 as compared to 214395 km2 in baseline year 2000 has significant increase based on IPPC classification. More or less Ethiopia accepted the default land use/land cover data for the reporting process of 2022

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	324	23 008	38 534	26 891	121 821	35
Grasslands	5 632	17 791	97 465	159 406	261 744	455
Croplands	132	35 064	80 520	45 942	107 743	165
Wetlands	17	198	477	250	1 342	107
Artificial surfaces	13	42	173	46	132	1
Other Lands	167	846	39 518	7 508	1 584	21 207
Water bodies	23	67	443	299	371	6 252

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	680	22 481	33 484	29 239	130 010	32
Grasslands	22 253	79 303	105 518	84 130	240 986	540
Croplands	1 242	49 583	46 447	21 303	145 920	152
Wetlands	27	180	406	469	1 215	113
Artificial surfaces	10	31	196	34	172	1
Other Lands	1 608	14 852	18 902	5 100	8 280	20 887
Water bodies	25	125	506	153	385	6 201

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	8 650	1	1 314	1 198	812	5 325
Grasslands	Tree-covered areas	5 523	7	605	681	787	3 442
Grasslands	Croplands	2 780	1	251	1 725	331	472
Tree-covered areas	Grasslands	1 936	1	111	1 017	220	587

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)
Grasslands	Tree-covered areas	14 970	306	1 856	2 071	1 513	9 220
Croplands	Tree-covered areas	10 260	16	1 313	1 300	867	6 757
Tree-covered areas	Croplands	2 010	0	285	475	161	1 089
Other Lands	Grasslands	1 916	71	278	384	331	352

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	85 975	7 .7
Land area with non-degraded land productivity	1 012 950	90 .3
Land area with no land productivity data	22 284	2 .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	546 657	48 .7
Land area with stable land productivity	354 143	31 .6
Land area with degraded land productivity	198 148	17 .7
Land area with no land productivity data	22 381	2 .0

General comments

The indirect evaluations methods were applied for estimation of land productivity. That is basically done by developing and applying models of varying complexity, thereby attempting to estimate land productivity. Land productivity can be determined using index based parametric approach by using GIS and earth observatory methods. Hence, land productivity is an essential variable for detecting and monitoring active land transformations typically associated with land degradation processes. It can be expressed as an equivalent of terrestrial NPP per unit of area and time that reflects the overall capacity of land to support biodiversity and provide ecosystem services. Trends in land productivity has been adopted by the United Nations Convention to Combat Desertification (UNCCD) as one of three biophysical progress indicators for mandatory reporting and proposed as sub-indicator for monitoring the progress towards achieving Sustainable Development Goal target 15.3.1. Hence, the estimate for land productivity in the national default data in praise-4 showed similar increasing trend with the national forest monitoring data. Specifically, covered area, grass land and cropland class showed increasing trend in terms of increase in the land net productivity. As indicated in the default data for land productivity it has increased by 48.8% from in the total land productivity which makes it more significant increase for progress made as strategic indicator meeting SDG goal -15 of land restoration. Hence, Ethiopia accepts the default data for national reporting of UNCCD for 2022.

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	89	48	77	62	138	49	7
2001	89	48	77	62	138	49	7
2002	88	48	77	62	137	49	7
2003	88	48	77	62	136	49	7
2004	87	48	78	62	135	49	7
2005	87	48	78	62	127	49	7
2006	86	48	78	61	121	49	7
2007	86	48	78	61	113	49	7
2008	86	48	78	62	106	49	7
2009	85	48	78	62	98	49	7
2010	85	48	78	62	90	49	7
2011	85	48	78	62	83	49	7
2012	85	48	78	62	77	49	7
2013	85	48	78	62	72	49	7
2014	84	48	79	62	67	49	7
2015	89	47	77	67	67	48	7
2016	88	47	78	67	62	48	7
2017	88	47	78	67	60	49	7
2018	85	48	78	65	60	49	7
2019	83	48	79	62	56	49	7
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	8 650	90 .2	100 .5	78 058 651	86 934 607	8 875 956

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)
Tree-covered areas	Grasslands	1 936	64 .6	64 .6	12 505 330	12 508 172	2 842
Grasslands	Tree-covered areas	5 523	70 .8	70 .8	39 088 654	39 083 301	-5 353
Grasslands	Croplands	2 780	61 .4	54 .0	17 057 161	15 021 417	-2 035 744

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	6 172	78 .8	80 .4	48 659 353	49 626 739	967 386
Other Lands	Grasslands	1 492	32 .4	35 .0	4 832 388	5 220 453	388 065
Grasslands	Tree-covered areas	11 965	60 .4	60 .4	72 214 362	72 219 728	5 366
Tree-covered areas	Croplands	1 449	94 .4	93 .0	13 674 564	13 479 546	-195 018

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)	3 966	0 .4
Land area with non-degraded SOC	1 117 109	99 .6
Land area with no SOC data	132	0 .0

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	2 702	0 .2
Land area with stable SOC	1 116 896	99 .6
Land area with degraded SOC	1 559	0 .1
Land area with no SOC data	172	0 .0

General comments

The decreasing trend in the soil organic carbon stock is among the significant universal indicators for land and soil degradation and compromises efforts to achieve the SDGs. Especially those with reference to food, health, water, climate, and land management. In the national default data asi indicated in the praise-4 portal, there is different from what has been reported in Praise-3 portal reporting system for each land use/cover classes. The figures indicated in the online reporting are much larger than what has been reported in the previous reporting. There may be inconsistent units used in the different reporting cycles. Hence, the SOC stock is arguably an important indicator for land and soil degradation among others. In geneneral, as an important strategic indicator, the soil organic carbon data is quite different from 2018 reporting.

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	92 626	8 .3
Reporting Period	222 666	19 .9
Change in degraded extent	130040	

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:

The method used for computation for this indicator follows the "One Out, All Out" statistical principle and is based on the baseline assessment and evaluation of change in the sub-indicators to determine the extent of land that is degraded over total land area. The principle is applied taking into account changes in the sub-indicators which are depicted as positive or improving, negative or declining, or stable or unchanging. If one of the sub-indicators is negative (or stable when degraded in the baseline or previous monitoring year) for a particular land unit, then it would be considered as degraded subject to validation by national authorities.

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						

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. Demographic
2. Institutions and governance
3. Economic
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. Legal and regulatory instruments
2. Climate change adaptation planning
3. Integrated landscape planning
4. Anthropogenic assets
5.
6.
7.
8.
9.
10.

General comments

The extent of land degradation exhibited from the total area in the reporting cycle has significant difference for the different report cycles. In the first reporting cycle which was done from 2000-2015, the rate of total degradation as SDG-15 indicator is 8.2%; while in the second reporting cycle from 2015-2019 it is increased to 17.9%. The increase in rate of degradation can be directly related the increase in population size in Ethiopia which currently expected to be 120 million. The world resources assessment with Ethiopian Environment Forest and Climate change has made the national priority maps that identified about 55 million hectare of land is categorized degraded. Based on the methodology used for estimation of land degradation, the figure for land degradation estimation also defers in area coverage.

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
Target 1: Promote the implementation of community based forest management, forest landscape restoration with indigenous species, avoiding overgrazing, area closure and, alternative livelihood systems, and ensure the restoration of 427,730 ha of forest land lost between 2000 and 2010.	2031		327 .730	☐ Avoid ☒ Reduce ☒ Reverse	• Restore/improve grasslands ◦ Restore rangeland (e.g. by controlling livestock and wildfires) ◦ Restore and improve pastures ◦ Halt/reduce conversion of grassland to other land cover types ◦ Improve land productivity in grasslands • Increase tree-covered area extent ◦ Increase tree covered land (net gain) e.g. plantations	Ongoing	◉ Yes ○ No LDN pilot project	• Bonn Challenge • AFR100	
Target 2: Ensure the rehabilitation and improvement of the productivity of 21,359,490 ha of forest land by stopping uncompensated conversion of forest area, especially in slopes, into grassland, cropping or urban areas, and promoting agroforestry, energy saving stoves and, alternative livelihood systems, in order to avoid reduction of carbon sock and limit the risk of erosion.	2036		21 395 .49	☒ Avoid ☒ Reduce ☐ Reverse	• Restore/improve tree-covered areas ◦ Reduce/halt deforestation and conversion of tree cover to other land cover types (e.g. conserving forest land) ◦ Restore/improve grasslands ◦ Increase land productivity in tree covered areas ◦ Restore tree-covered areas ◦ Improve tree cover management e.g. fire management • Increase soil fertility and carbon stock ◦ Reduce soil erosion ◦ Reduce sand encroachment ◦ Rehabilitate bare land and/or restore degraded land ◦ Increase carbon stock and reduce soil/land degradation	Ongoing	◉ Yes ○ No Participation in the LDN Target Setting Programme	• Bonn Challenge • AFR100	
Total			Sum of all targeted areas 28 572 .84						

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
Target 3: Improve the productivity of 314,990 ha of shrubs, grasslands and sparsely vegetated areas by the year 2040 through avoiding overgrazing, promoting controlled grazing, and rangeland management/improvement.	2040		314 .999	☒ Avoid ☒ Reduce ☐ Reverse	• Restore/improve grasslands ◦ Restore rangeland (e.g. by controlling livestock and wildfires) ◦ Restore and improve pastures ◦ Halt/reduce conversion of grassland to other land cover types ◦ Improve land productivity in grasslands	Ongoing	◉ Yes ○ No	• Bonn Challenge • AFR100	
Target 4: Rehabilitate and improve the productivity of 12,578,714 ha shrubs, grasslands and sparsely vegetated areas through stopping uncompensated conversion of permanent grasslands in to croplands, promoting controlled grazing, and rangeland management/improvement so as to avoid reduction of soil carbon stock	2040		1 257 .8714	☒ Avoid ☒ Reduce ☐ Reverse	• Restore/improve grasslands ◦ Restore rangeland (e.g. by controlling livestock and wildfires) ◦ Restore and improve pastures ◦ Halt/reduce conversion of grassland to other land cover types ◦ Improve land productivity in grasslands		◉ Yes ○ No LDN pilot project	• Bonn Challenge • AFR100	
Target 5: Improved productivity of 14,193,615 ha of cropland by reverting negative trends of arable land deterioration, including acidification, alkalization and salinization, erosion by strongly discouraging inappropriate practices and supporting soil, water and vegetation long-term conservation practices; limiting drastically the size of individual parcel to the maximum permitted to conserve biodiversity and natural regeneration potential, through agroforestry and green corridors and biodiversity grids, especially in large-scale commercial farms; accelerating the conversation of unsustainable to sustainable cropping, grazing, forestry in the framework of scientifically grounded watershed management plans implemented under legally binding long-term agreements and contracts; and 100% cropland shows stable of increasing land productivity capacity	2031		1 419 .3615	☐ Avoid ☐ Reduce ☒ Reverse	• Restore/improve croplands ◦ Practise sustainable land management ◦ Improve water use for irrigation ◦ Halt/reduce conversion of cropland to other land cover types ◦ Increase land productivity in agricultural areas ◦ Rehabilitate bare or degraded land for crop production		◉ Yes ○ No Other process community based national restoration effort	• Bonn Challenge • AFR100	
Total			Sum of all targeted areas 28 572 .84						

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
Target 6: Ensure improved productivity of 72,766 ha of wetlands and water bodies through stopping uncompensated conversion of wetlands into cropping or urban / industrial / infrastructure areas, in order to avoid depletion of carbon stock and critical biodiversity	2026		72 .766	☒ Avoid ☒ Reduce ☐ Reverse	• Restore/improve wetlands ◦ Restore/preserve wetlands and reduce degradation of wetlands ◦ Halt/reduce wetland conversion to other land uses (includes conserving wetlands)	Ongoing	◉ Yes ○ No	• Bonn Challenge • AFR100	
Target 7: Take urgent and significant actions like stopping uncompensated artificialisation /urbanization of arable lands, through urban densification and "building city on city" approach; restoring as much as possible lands degraded by pollutions, originated by urban, industrial, mining untreated contaminants; revitalizing vegetation in degraded slopes, dried lands, closed mines, infrastructure (airports, harbours, roads, dams and reservoirs) using pools of endogenous species and further sustainable use and promoting plantation of indigenous tree species, and improve the productivity of 33,452 ha of artificial areas .	2026		33 .452	☒ Avoid ☒ Reduce ☐ Reverse	• Manage artificial surfaces ◦ Restore degraded mining areas ◦ Halt illegal mining and/or reduce mining areas ◦ Improve land productivity on artificial surfaces ◦ Halt/reduce /regulate expansion of urban/artificial surfaces	Ongoing	◉ Yes ○ No LDN pilot project	• Bonn Challenge • AFR100	
Target 8: Through sustainable land management practices particularly implementing biophysical soil and water conservation practices improve the productivity of 3,751,173 ha of bare land and other areas	2036		3 751 .173	☒ Avoid ☐ Reduce ☐ Reverse	• Reduce/halt conversion of multiple land uses	Ongoing	◉ Yes ○ No	• Bonn Challenge • AFR100	
Target 9: Ensure the increase of carbon stock in the country by 148.67 million tons of carbon between 2016 and 2040 through achieving the above mentioned targets	2040			☐ Avoid ☐ Reduce ☒ Reverse	• Restore productivity and soil organic carbon stock in croplands and grasslands		◉ Yes ○ No	• United Nations Framework Convention on Climate Change – Nationally Determined Contributions	
Total			Sum of all targeted areas 28 572 .84						

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)	Edit Polygon
	Same As Targeted Actions	national scale	2019-12-04	30 000	0	

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

Relevant Target	Implemented Action	Location (placename)	Action start date	Extent of action	Total Area Implemented So Far (km²)	Edit Polygon
					Sum of all areas relevant to actions under the same target	
					Target 1: Promote the implementation of community based forest management, forest landscape restoration with indigenous species, avoiding overgrazing, area closure and, alternative livelihood systems, and ensure the restoration of 427,730 ha of forest land lost between 2000 and 2010.: 0.00	
					Target 2: Ensure the rehabilitation and improvement of the productivity of 21,359,490 ha of forest land by stopping uncompensated conversion of forest area, especially in slopes, into grassland, cropping or urban areas, and promoting agroforestry, energy saving stoves and, alternative livelihood systems, in order to avoid reduction of carbon sock and limit the risk of erosion.: 0.00	
					Target 3: Improve the productivity of 314,990 ha of shrubs, grasslands and sparsely vegetated areas by the year 2040 through avoiding overgrazing, promoting controlled grazing, and rangeland management/improvement.: 0.00	
					Target 4: Rehabilitate and improve the productivity of 12,578,714 ha shrubs, grasslands and sparsely vegetated areas through stopping uncompensated conversion of permanent grasslands in to croplands, promoting controlled grazing, and rangeland management/improvement so as to avoid reduction of soil carbon stock: 0.00	
					Target 5: Improved productivity of 14,193,615 ha of cropland by reverting negative trends of arable land deterioration, including acidification, alkalization and salinization, erosion by strongly discouraging inappropriate practices and supporting soil, water and vegetation long-term conservation practices; limiting drastically the size of individual parcel to the maximum permitted to conserve biodiversity and natural regeneration potential, through agroforestry and green corridors and biodiversity grids, especially in large-scale commercial farms; accelerating the conversation of unsustainable to sustainable cropping, grazing, forestry in the framework of scientifically grounded watershed management plans implemented under legally binding long-term agreements and contracts; and 100% cropland shows stable of increasing land productivity capacity: 0.00	
					Target 6: Ensure improved productivity of 72,766 ha of wetlands and water bodies through stopping uncompensated conversion of wetlands into cropping or urban / industrial / infrastructure areas, in order to avoid depletion of carbon stock and critical biodiversity: 0.00	
					Target 7: Take urgent and significant actions like stopping uncompensated artificialisation /urbanization of arable lands, through urban densification and “building city on city” approach; restoring as much as possible lands degraded by pollutions, originated by urban, industrial, mining untreated contaminants; revitalizing vegetation in degraded slopes, dried lands, closed mines, infrastructure (airports, harbours, roads, dams and reservoirs) using pools of endogenous species and further sustainable use and promoting plantation of indigenous tree species, and improve the productivity of 33,452 ha of artificial areas .: 0.00	
					Target 8: Through sustainable land management practices particularly implementing biophysical soil and water conservation practices improve the productivity of 3,751,173 ha of bare land and other areas: 0.00	
					Target 9: Ensure the increase of carbon stock in the country by 148.67 million tons of carbon between 2016 and 2040 through achieving the above mentioned targets: 0.00	

General comments

The green legacy initiative was recent national initiative which has become effective through forest landscape restoration and mobilized vast public, community and private resources. It was started in 2019 and extended to 2023. so far 15 billion of different tree species have been planted on 3 million ha land through mobilization of different community groups. the green legacy initiative is greatly supporting the LDN targets which is expected to be achieved by 2030. Forest landscape restoration is basic approach for supporting LDN targets through national green legacy campaign. The Ethiopian government plans to plant 5 billion seedlings every year. The First Green Legacy Campaign organized in 2019 during the Ethiopian rainy season, which runs from the beginning of June to end of August. A record number of nearly 354 million trees were planted in a single day on what the Government named Green Legacy Day, 29 July 2019, although the Government’s plan had been to plant 200 million trees. Almost all Government offices were closed on that day as civil servants were out to plant trees. The Ethiopian media highly promoted the event with a countdown and the people of Ethiopia, young and old, planted trees enthusiastically. Media reported that over 80% of the trees planted last year have survived owing mainly to close follow-up by the people and good rainfall. Ethiopia’s diverse forest resources, including high forests, woodlands, and trees on farms, provide goods and services of important value to Ethiopia’s people, environment and economy. The Government of Ethiopia has stated a strong interest in strengthening the contribution of the forest sector to achieving economic growth and to ensure the social and environmental sustainability of this growth. the national forest estimate indicates 17.35 million hectares of forests covering 15.7% of the national territory and a large expanse of degraded lands suitable for forest restoration, Ethiopia has huge potential to develop the forest sector to contribute to Ethiopia’s sustainable growth. The National Forest Sector Development Program (NFSDP) is a country-driven initiative instigated by Ethiopia’s Ministry of Environment, Forest and Climate Change (MEFCC) as the main guiding document for coordinating strategic policy interventions and sector-wide investments for the coming ten-year period. The goal of the NFSDP is to provide the master plan that serves as the roadmap for future forestry actions across sectors and Ministries and considering the mandate of the regions in the constitution. The NFSDP also contributes to mobilize funding and coordinate support. Given that successful forest sector development requires collaboration across many sectors and institutions, this NFSDP highlights the important role of many sectoral Ministries beyond MEFCC in the successful implementation of the NFSDP. The forest sector has been receiving pronounced attention from the Government of Ethiopia, as the forest sector plays a central role in realizing the country’s commitment to achieving a Climate-Resilient Green Economy (CRGE). The CRGE strategy aims to build a middle income and climate-resilient economy with a zero net increase over the 2010 baseline emission, in national greenhouse gas (GHG) emissions by 2030. The forest sector has the potential to contribute significantly to Ethiopia’s climate mitigation ambitions, with the national REDD+strategy estimated to contribute 50% of GHG emissions reduction between 2010 and 2030. Forests play a central role in maintaining Ethiopia’s invaluable forest biodiversity, providing critical habitat for flora and fauna and also protect agricultural biodiversity. The Forest Sector Review (2015) explains how the forest sector is a strategic component of Ethiopia’s transformation towards a more prosperous and industrialized economy, given investments in forest plantations and accompanying industries support manufacturing, export diversification, import substitution, and rural development goals. With the right interventions and policy adjustments, the forest sector has the potential to expand its contribution to sustainable economic development, creating green jobs and fostering climate change adaptation.

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)

Qualitative assessment

SO2-1.T3: Interpretation of the indicator

Indicator metric	Change in the indicator	Comments

General comments

The new Ethiopia poverty assessment finds that the national poverty rate has declined amid of challenging climatic conditions. Activities for poverty reduction were particularly strong in cities and towns, in line with strong overall economic growth. According to World Bank report. “A major arising issue is the need to transition to non-farm livelihoods, with the more than two million annual new emigrants to the Ethiopian labor market increasingly making a living from non-farm wage employment and self-employment. Additionally, the disparity in access to education between rural and urban households widens the gap in wage earning opportunities and therefore needs to be addressed. Although the services sector contributed to poverty reduction and it is likely to increase as structural transformation gains pace in the country, agriculture sector remains by far the most important in terms of poverty reduction. This implies that although agriculture is declining as a share of gross domestic product, its dominance in the livelihoods of poor people means that improvements in input markets, mechanization and land tenure will be needed to drive poverty reduction for at least the next decades.

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	33	0	5
2001	35	0	5
2002	35	0	6
2003	36	0	6
2004	36	0	6
2005	36	1	6
2006	36	1	6
2007	36	1	7
2008	37	1	7
2009	37	1	7
2010	37	2	8
2011	37	2	8
2012	37	2	9
2013	38	3	9
2014	38	3	9
2015	38	3	10
2016	38	4	10
2017	38	4	11
2018	39	4	11
2019	39	5	12
2020	39	5	13

Qualitative assessment

SO2-2.T2: Interpretation of the indicator

Change in the indicator	Comments

General comments

In general, the report given as default data of praise portal-4 on the proportion of people access to drinking water was similar to to the World Bank report which is 13% of the total population. The triangulation of data for the 13% estimates ensures how the report is near to the truth indicating Ethiopia is still low in terms of social welfare. People using safely managed drinking water services (% of population) in Ethiopia was reported at 12.58% in 2020, according to the World Bank collection of development indicators, compiled from socially recognized sources. In Ethiopia, 60 to 80 percent of communicable diseases are attributed to limited access to safe water and inadequate sanitation and hygiene services. In addition, an estimated 50 percent of the consequences of under nutrition are caused by environmental factors that include poor hygiene and lack of access to water supply and sanitation. There are strong links between sanitation and stunting, and open defecation can lead to fecal-oral diseases such as diarrhea, which can cause and worsen malnutrition. As 65 per cent of households have access to improved water sources; 6.3 per cent of households have access to improved sanitation; 60 - 80 percent of communicable diseases are attributed to limited access to safe water and inadequate sanitation and hygiene services 70,000 under-five deaths per year due to diarrhea and 17 per cent of people practice improved hygiene behaviors and live in healthy environments.

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	14664248	16 .4	7447518	16 .6	7216730	16 .3
Reporting period	19813459	19 .9	9969766	19 .9	9843693	20 .0

Qualitative assessment

SO2-3.T2: Interpretation of the indicator

Change in the indicator	Comments

General comments

The major cause for land degradation in Ethiopia is known to happen for inappropriate use of land for different economic activities. Human activities contributing to land degradation such as deforestation, removal of natural vegetation, overgrazing, and agricultural intensification without erosion control measures sustained for long period by deteriorating land. The major causes of land degradation in Ethiopia as rapid population increase, severe soil loss, deforestation, low vegetative cover and unbalanced crop and livestock production. Besides the human induced causes, factors such as land topography, ecology, rainfall, land cover and soil types counted as being as proximate and underlying causes of land degradation in Ethiopia. Land degradation is an important problem in Ethiopia, with more than 85 % of the land degraded to various degrees. Recent estimates using satellite imagery show that land degradation hotspots over the last three decades cover about 23 % of the land area in the country. The assessment of nationally representative household survey shows that important drivers of sustainable land management in Ethiopia are biophysical, regional and socio-economic determinants. Specifically, access to agricultural extension services and markets and secure land tenure are important incentives to adoption of sustainable land management practices. Thus, policies and strategies relating to securing tenure rights, building the capacity of land users through access to extension services, and improving access to input, output and financial markets should be considered in order to incentivize sustainable land management. Important local level initiatives and institutions to manage grazing lands and forests through collective action should also be encouraged. The country loses about $106 million annually through soil and nutrient loss. Soil degradation is the one and the major form of land degradation that have been stayed for long period as the bottlenecks of the country's economy and human wellbeing. The economic loss soil degradation in the form of soil erosion and nutrient depletion only from the highlands of the country is about10-11% of agricultural gross domestic products. Soil erosion is one of the major causes of soil degradation in the country. The annual soil loss rate on average is about 42 tones/ha for croplands, and up to 300 tones/ha in extreme cases. The average total soil loss of the country is estimated as 12 ton/ha/year, which varied based on land cover types. Ethiopia historically passed significant dynamics in land use/land cover since long ago to date. Land use and land cover changes and degradation are increasing at alarming rate generally throughout the country. The annual cost of land degradation associated with land use and cover change in Ethiopia is estimated to be about $4.3 billion. Only about 51 % of this cost of land degradation represents the provisioning ecosystem services. The remaining 49 % represent the loss of supporting and regulatory and cultural ecosystem services. Use of land degrading practices in maize and wheat farms resulted in losses amounting to $162 million representing 2 % equivalent of the GDP in 2007. The costs of action to rehabilitate lands degraded during the 2001–2009 period through land use and cover change were found to equal about $54 billion over a 30-year horizon, whereas if nothing is done, the resulting losses may equal almost $228 billion during the same period. Thus, the costs of action against land degradation are lower than the costs of inaction by about 4.4 times over the 30 year horizon; implying that a dollar spent to rehabilitate degraded lands returns about 4.4 dollars in Ethiopia. The change in land use types played a significant role in this increased rate of soil erosion in Ethiopia. Cultivated lands showed continuously increasing trend at the expense of forest and grasslands. The rapidly increasing population has led to a declining availability of cultivable land and a very high rate of soil erosion. The objective of this review paper is to view the effect of Land Use-Land Cover change in soil erosion in Ethiopia.

SO2 Voluntary Targets

SO2-VT.T1

Target	Year	Level of application	Status of target achievement	Comments
Green Legacy intiative	2022	National	Ongoing	High community mobilization

General comments

The community mobilization is much appreciated in which all public private and civic society organizations are involved in the annual campaign which is implemented based forest landscape in Ethiopia for supporting the land degradation neutrality targets. Based on the national assessment of degraded land WRI and Ethiopian forest and climate change commission have developed the potential priority maps of degraded land in which 52 million hectare of land is identified which need urgent restoration so that it needs to technically align the green legacy initiative with priority areas to attain the land degradation neutrality targets. Hence, he green legacy initiative is national volunteer target which expected to greatly contribute to the achievements of the land degradation neutrality targets and SDG-15 by 2030.

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	364 419	121 014	25 556	13 719	604 264
2001	417 357	111 077	29 926	15 220	555 391
2002	570 358	174 371	87 882	32 461	263 900
2003	595 423	94 667	21 299	1 515	416 068
2004	596 239	60 932	43 256	4 553	423 992
2005	493 504	70 089	6 247	321	558 811
2006	96 708	0	0	0	1 032 264
2007	408 666	85 978	21 372	2 046	610 909
2008	446 758	117 529	58 835	65 660	440 189
2009	650 719	220 535	57 073	64 244	136 400
2010	288 566	53 493	24 701	34 832	727 380
2011	385 898	83 893	34 580	0	624 601
2012	461 604	7 833	0	0	659 535
2013	334 065	6 351	0	0	788 555
2014	297 392	25 136	13 684	13 675	779 085
2015	424 559	90 142	36 389	35 622	542 259
2016	305 044	58 970	0	0	764 957
2017	299 106	747	0	0	829 119
2018	117 428	0	0	0	1 011 544
2019	129 499	0	0	0	999 472
2020					
2021					

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	524 707	46 .8
2001	573 580	51 .2
2002	865 071	77 .2
2003	712 904	63 .6
2004	704 979	62 .9
2005	570 161	50 .8

	Total area under drought (km²)	Proportion of land under drought (%)
2006	96 708	8 .6
2007	518 062	46 .2
2008	688 782	61 .4
2009	992 572	88 .5
2010	401 592	35 .8
2011	504 370	45 .0
2012	469 437	41 .9
2013	340 417	30 .4
2014	349 886	31 .2
2015	586 712	52 .3
2016	364 014	32 .5
2017	299 852	26 .7
2018	117 428	10 .5
2019	129 499	11 .5
2020		-
2021		-

Qualitative assessment:

General comments

In General, drought is a prolonged period of abnormally low rainfall, leading to a shortage of water, occurs in many parts of the world. Prolonged and widespread drought is a recurrent feature of the wider Horn of Africa exacerbated by climate change phenomena, advancing desertification and ecological degradation (IGAD, 2013). These harsh ecological circumstances contribute to severe hardships amongst the predominantly pastoral and agro-pastoral communities, including, dislocation, abject poverty, persistent hunger and famine and conflicts within and across boundaries in the region. Ethiopia is one of the most affected countries in the region facing this challenge when coupled with the deep-seated poverty. Each year, drought negatively affects millions of people in Ethiopia, bringing significant damage to environment, economies and livelihoods. Risks associated with drought in Ethiopia are both products of the country's exposure to the event and its vulnerability to drought. It is apparent that the exposure and vulnerability of rural communities has put the country into recurring food, feed and water crises. The country's disaster risk management policy (FDRE, 2013) aimed at addressing the effects of natural disasters including drought and related shocks in the country in a holistic manner. However, a comprehensive National Drought Plan (NDP) is required to guide the effort of state and non-state actors on drought issues. Drought indices are very important in enabling the detection of the onset of a drought event, its scale of coverage, its intensity and severity. Drought indices are designed to provide a concise overall picture of droughts. They are often derived from hydro-climatic data and are used for making decisions on mitigating the impact of droughts. Ideally, the use of quantitative drought indices for drought management reduces the subjective preferences of decision makers. Some of the international operational drought indices include the following: i. Percent of Normal ii. Deciles iii. Palmer Drought Severity Index (PDSI) iv. Surface Water Supply Index(SWSI) v. Standardized Precipitation Index(SPI) vi. Remote sensing indices such as NDVI, VCI and SVI Though there are different types of specialized drought indices designed to support the monitoring of the different drought categories, it is usually advisable to adopt one for a given country that can be used flexibly to monitor the different categories. Although there is no drought index that is inherently superior in all circumstances; some indices are better suited than others for certain regional applications. Based on a comparison of different drought indices, Ntale and Gan (2003) found that the SPI was the best index to characterize droughts in East Africa. General comments National estimates of the land area coverage in each drought intensity classes as defined by the Standardized Precipitation Index is used as qualitative indicator in which the default data is acceptable after triangulation with the document in national drought plan assessmentRecurrent droughts in pastoral Ethiopia have exposed the critical feed shortage that prevails in the country. Between 2000 and 2017, six drought episodes have been registered, with the latest two (in 2011 and 2016/17) devastating pastoral and agro-pastoral livelihoods (FAO, 2017). More convincingly, the frequency of drought in the country is shifting from a multi-decade to a few years sequence has occurred in the past. Given the recurrent nature of drought related crises in Ethiopia, Government and partners have agreed that a significant shift in approach is required (FDRE,2018) The economic and environmental impacts of drought continue to increase as the population of the country increases. Recent drought and water supply conditions on pastoralist regions of the country has depleted the water supplyand drastically affected the livestock population of the regions. Though Ethiopia is considered as the 'water-tower' of Africa, drought had both environmental and economic impacts in many parts of the country. Prolonged and widespread drought is a recurrent feature of the wider Horn of Africa, exacerbated by climate change phenomena, advancing desertification and ecological degradation. These harsh ecological circumstances contribute to severe hardships amongst the affected communities, Including, dislocation, abject poverty, persistent hunger and famine and conflicts within and across boundaries in the region.

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	51979	91.4	4869	8.6	0	0.0	0	0.0	0	0.0	4 869	8.6
2001	58181	95.6	2700	4.4	0	0.0	0	0.0	0	0.0	2 700	4.4
2002	62539	96.0	2613	4.0	0	0.0	0	0.0	0	0.0	2 613	4.0
2003	66545	96.4	2463	3.6	0	0.0	0	0.0	0	0.0	2 463	3.6
2004	65331	96.2	2609	3.8	0	0.0	0	0.0	0	0.0	2 609	3.8
2005	74168	96.5	2655	3.5	0	0.0	0	0.0	0	0.0	2 655	3.5
2006	76457	96.5	2748	3.5	0	0.0	0	0.0	0	0.0	2 748	3.5
2007	53	0.1	15290	17.5	2867	3.3	54233	62.1	14843	17.0	87 233	99.9
2008	0	0.0	0	0.0	71677	86.3	11417	13.7	0	0.0	83 094	100.0
2009	81959	89.5	9575	10.5	0	0.0	0	0.0	0	0.0	9 575	10.5
2010	92465	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2011	0	0.0	66974	68.8	13149	13.5	17191	17.7	0	0.0	97 314	100.0
2012	101299	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2013	106945	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2014	111986	96.6	3916	3.4	0	0.0	0	0.0	0	0.0	3 916	3.4
2015	113761	96.8	3731	3.2	0	0.0	0	0.0	0	0.0	3 731	3.2
2016	121193	97.0	3733	3.0	0	0.0	0	0.0	0	0.0	3 733	3.0
2017	123716	96.7	4214	3.3	0	0.0	0	0.0	0	0.0	4 214	3.3
2018	131495	97.1	3945	2.9	0	0.0	0	0.0	0	0.0	3 945	2.9
2019	135693	96.6	4764	3.4	0	0.0	0	0.0	0	0.0	4 764	3.4
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	19981	90.3	2144	9.7	0	0.0	0	0.0	0	0.0	2 144	9.7

	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	20734	94.2	1284	5.8	0	0.0	0	0.0	0	0.0	1 284	5.8
2002	22878	94.8	1253	5.2	0	0.0	0	0.0	0	0.0	1 253	5.2
2003	24626	96.3	957	3.7	0	0.0	0	0.0	0	0.0	957	3.7
2004	23886	95.3	1168	4.7	0	0.0	0	0.0	0	0.0	1 168	4.7
2005	28617	95.9	1221	4.1	0	0.0	0	0.0	0	0.0	1 221	4.1
2006	29511	95.9	1270	4.1	0	0.0	0	0.0	0	0.0	1 270	4.1
2007	25	0.1	4898	14.3	1138	3.3	22743	66.6	5330	15.6	34 109	99.9
2008	0	0.0	0	0.0	29217	89.8	3319	10.2	0	0.0	32 536	100.0
2009	32216	91.1	3145	8.9	0	0.0	0	0.0	0	0.0	3 145	8.9
2010	36142	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2011	0	0.0	28021	72.7	5257	13.6	5278	13.7	0	0.0	38 556	100.0
2012	39850	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2013	41948	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2014	45122	97.7	1080	2.3	0	0.0	0	0.0	0	0.0	1 080	2.3
2015	46270	97.8	1046	2.2	0	0.0	0	0.0	0	0.0	1 046	2.2
2016	48365	97.8	1077	2.2	0	0.0	0	0.0	0	0.0	1 077	2.2
2017	50210	97.6	1237	2.4	0	0.0	0	0.0	0	0.0	1 237	2.4
2018	52378	97.7	1225	2.3	0	0.0	0	0.0	0	0.0	1 225	2.3
2019	54189	97.1	1604	2.9	0	0.0	0	0.0	0	0.0	1 604	2.9
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	31998	92.2	2725	7.8	0	0.0	0	0.0	0	0.0	2 725	7.8
2001	37447	96.4	1416	3.6	0	0.0	0	0.0	0	0.0	1 416	3.6
2002	39661	96.7	1360	3.3	0	0.0	0	0.0	0	0.0	1 360	3.3
2003	41919	96.5	1506	3.5	0	0.0	0	0.0	0	0.0	1 506	3.5
2004	41445	96.6	1441	3.4	0	0.0	0	0.0	0	0.0	1 441	3.4
2005	45551	96.9	1434	3.1	0	0.0	0	0.0	0	0.0	1 434	3.1

	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	46946	96.9	1478	3.1	0	0.0	0	0.0	0	0.0	1 478	3.1
2007	28	0.1	10392	19.6	1729	3.3	31490	59.2	9513	17.9	53 124	99.9
2008	0	0.0	0	0.0	42460	84.0	8098	16.0	0	0.0	50 558	100.0
2009	49743	88.6	6430	11.4	0	0.0	0	0.0	0	0.0	6 430	11.4
2010	56323	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2011	0	0.0	38953	66.3	7892	13.4	11913	20.3	0	0.0	58 758	100.0
2012	61449	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2013	64997	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2014	66864	95.9	2836	4.1	0	0.0	0	0.0	0	0.0	2 836	4.1
2015	67491	96.2	2685	3.8	0	0.0	0	0.0	0	0.0	2 685	3.8
2016	72828	96.5	2656	3.5	0	0.0	0	0.0	0	0.0	2 656	3.5
2017	73506	96.1	2977	3.9	0	0.0	0	0.0	0	0.0	2 977	3.9
2018	79117	96.7	2720	3.3	0	0.0	0	0.0	0	0.0	2 720	3.3
2019	81504	96.3	3160	3.7	0	0.0	0	0.0	0	0.0	3 160	3.7
2020		-		-		-		-		-	-	-
2021		-		-		-		-		-	-	-

Qualitative assessment

Interpretation of the indicator

The number of men and women in the world is roughly equal, though men hold a slight lead with 102 men for 100 women (in 2020). More precisely, out of 1,000 people, 504 are men (50.4%) and 496 are women (49.6%).

General comments

In 1984 The drought was severe in the northeastern half of the country, while all zones were affected at the seasonal level. The 1984 was among the three driest years, being the driest in the Northeastern Rift Valley, the Northeastern Highlands, the Central Highlands.The severity of the 1984 drought was strengthened as all the three rainy seasons were dry in those parts of the country where they are effective. During 1990–1992 all zones experienced moderate, extreme or severe drought on the seasonal or annual level. During 1990 and 1991 were dry years in all of Ethiopia, with the exception of a small positive deviation in the Northeastern Rift Valley in 1990. A severely dry spring in 1992 followed, causing extreme drought on the 12-month scale in the Southern and Southeastern Lowlands, as well as in the Northeastern Rift Valley and the Northwestern Highlands. In the Southern Lowlands, the spring of 1992 was the worst during 1972–2011, and in the Southeastern Lowlands the second worst.

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 .74		
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

Almost all parts of Ethiopia have experienced some degree of drought over the past three thousand years, although the frequency, intensity, and duration vary from one region to another. The most drought prone areas of Ethiopia have been the northern, north-eastern and south-eastern parts of the country including the eastern half of the country and the southern parts of the country(Comenetez and Caviedes, 2002, WoldeGiorgis et al 2001 and Wolde Mariam, 1986). These drought prone areas are found entirely over the moisture deficit semi arid areas of the country. These areas are characterized by high variability of the rainfall from year to year with a high value of coefficient of variability and the length of growing period is in the average less than 3 months and hence the occurrence of a few weeks of dry spells, or early cessation of the rainfall can result in an agricultural drought. Thus it is important to note that addressing drought vulnerability in Ethiopia should consider the semi arid areas of the country as a whole. The Semi arid areas when they combine with the Arid (No growing areas) are

make up the dry land areas of the country.

SO3 Voluntary Targets

SO3-VT.T1

Target	Year	Level of application	Status of target achievement	Comments
Green Legacy intiative	2019	National	Partially achieved 50	High community mobilization

General comments

On 18th May, Prime Minister Abiy launched the 2021 edition of the Green Legacy Initiative, a tree-planting campaign aimed at curbing the effects of climate change and deforestation. During the upcoming rainy season, Ethiopia plans on planting 6 billion seedlings. restoring the country's green cover, eliminating erosion and pollution, reducing conflicts arising due to environmental degradation and reduction of natural resources, and measures to support Ethiopia's agricultural sector and economy. As part of the launching week, the Prime Minister's office also briefed members of the diplomatic community and investors on the Initiative, highlighting achievements registered during the previous planting sessions and future activities. Ethiopia has taken bold leadership in climate action. As part of the Green Legacy Initiative, which was launched in 2019, 20 billion trees will be planted across the country over four years. So far, 4 billion seedlings were planted in 2019, including the infamous record-breaking 353 million seedlings in one day, while in 2020, 5 billion seedlings were planted. In 2021, 6 billion trees will be planted. This year, the campaign is also going regional an additional 1 billion seedlings will be sent to neighboring countries to start a regional effort towards a green Africa. target on track. Lunched in 2019, the east African nation has a plan to plant 20 billion trees nation wide within four years.Three years into the period, the country has managed to plant more than 18 billion tree seedlings. The milestones achieved in the planning and implementation of the annual initiative need to be duplicated in various sectors, facilitating Ethiopia's inevitable prosperity,

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 .84937	0 .84014	0 .85619	
2001	0 .84943	0 .84003	0 .85633	
2002	0 .84947	0 .83949	0 .85653	
2003	0 .84942	0 .8384	0 .85666	
2004	0 .84953	0 .83826	0 .85683	
2005	0 .84922	0 .8378	0 .85718	
2006	0 .84907	0 .83719	0 .8575	
2007	0 .84929	0 .83585	0 .85785	
2008	0 .84929	0 .8356	0 .85856	
2009	0 .84907	0 .83454	0 .85858	
2010	0 .84892	0 .83387	0 .85921	
2011	0 .84903	0 .83186	0 .86018	
2012	0 .84881	0 .83173	0 .86075	
2013	0 .84904	0 .82996	0 .86175	
2014	0 .84885	0 .82953	0 .86252	
2015	0 .84891	0 .82949	0 .86321	
2016	0 .84894	0 .82849	0 .86382	
2017	0 .84892	0 .82716	0 .86471	
2018	0 .84897	0 .82696	0 .86557	
2019	0 .84853	0 .82591	0 .86628	
2020	0 .84879	0 .82451	0 .86778	

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

General comments

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	17.61	17 .61	17 .61	
2001	17.61	17 .61	17 .61	
2002	17.61	17 .61	17 .61	
2003	17.61	17 .61	17 .61	
2004	17.61	17 .61	17 .61	
2005	17.61	17 .61	17 .61	
2006	17.61	17 .61	17 .61	
2007	18.1	18 .1	18 .1	
2008	18.1	18 .1	18 .1	
2009	18.1	18 .1	18 .1	
2010	18.1	18 .1	18 .1	
2011	18.1	18 .1	18 .1	
2012	18.1	18 .1	18 .1	
2013	18.1	18 .1	18 .1	
2014	18.1	18 .1	18 .1	
2015	18.1	18 .1	18 .1	
2016	18.1	18 .1	18 .1	
2017	18.1	18 .1	18 .1	
2018	18.1	18 .1	18 .1	
2019	18.1	18 .1	18 .1	
2020	18.1	18 .1	18 .1	

Qualitative assessment

SO4-3.T2: Interpretation of the indicator

Qualitative Assessment	Comment

General comments

SO4 Voluntary Targets

SO4-VT.T1

Target	Year	Level of application	Status of target achievement	Comments

Complementary information

Ethiopia is one of the top 25 biodiversity-rich countries in the world, and hosts two of the world's 34 biodiversity hotpots, namely: the Eastern Afromontane and the Horn of Africa hotspots (WCMC, 1994). It is also among the countries in the Horn of Africa regarded as major centre of diversity and endemism for several plant species. The diverse topography gave rise to a wide range of altitude and other environmental factors. According to a classification based on agro-ecosystem known as agro-ecological zones, Ethiopia has 18 major and 49 minor agro-ecological zone. This has resulted in wide variations in rainfall, humidity and temperature as a result of which the country comprises ten ecosystems that range from Afroalpine at the highest elevations to desert and semi-desert ecosystems at the lowest elevations. Because of the combined effects of topographic and climatic factors, the country is endowed with diverse ecosystems that are inhabited by diverse animal, plant and microbial species. Plant biodiversity.Ethiopia has wide diversity of microbial biodiversity which, however, are hardly explored. Few efforts made by various institutions in the area of fermenter microbes, mycorrhiza, acetic acid and rhizobium bacteria indicated that the country has microbes of diverse economic and ecological importance. Moreover, efforts made in the extreme environments such as hot springs, alkaline aquatic ecosystems and salty areas have shown the existence of highly diversified extremophilic microorganisms in these areas. In Ethiopia, some institutions have so far identified limited number of microbial species out of which 381 species of bacteria, fungi and microalgae have been conserved in national gene bank. The Ethiopian flora is estimated at 6000 species of higher plants of which 10% are considered to be endemic. Woody plants constitute about 1000 species (IBC, 2012a).Ethiopia is a centre of origin for many cultivated plants such as Tef (Eragrostis tef), noug (Guizotia abyssinica), Ethiopian mustard (Brassica carinata), enset (Ensete ventricosum), anchote (Coccinia abyssinica) and coffee (Coffea arabica). The country is also a centre of diversity for species such as wheat (Triticum sp.), barley (Hordeum vulgare), sorghum (Sorghum bicolor), pea (Pisum sativum), cowpea (Vigna unguiculata), chickpea (Cicer arietinum), lentil (Lens culinaris), chat (Catha edulis), shiny-leaf buckthorn (Rhamnus prinoides), cotton (Gossypium herbacieum), castor bean (Ricinus communis), oats (Avena abyssinica) and clovers (Trifolium sp.). Wild relatives also exist for most of these species. The Ethiopian forests and woodlands are reservoirs and gene pools for several domesticated and/or important wild plants and wild relatives. Species richness varies across forests, depending on environmental factors characterizing the forests. The country is also known to be a centre of diversity for a number of important forage species in the genera Trifolium, Vigna, and Dolichos, among others. Out of the 26 indigenous species of Trifolium, eight are endemic to Ethiopia. Similarly, of the total medicinal plant species, 2.7% are endemic to Ethiopia, and most are found in the wild (IBC, 2012b). The Ethiopian wild fauna are comprised of 284 mammal, 861 bird, 201 reptile, 200 fish, 63 amphibian and1,225 arthropod (324 butterfly) species. Of these; 29 mammal, 18 bird, 10 reptile, 40 fish, 25 amphibians and 7 arthropod species are endemic to the country. The NBSAP/ national biodiversity strategy and action plan/ was developed with funding from GEF-UNDP. A Project Steering Committee of principal stakeholders was established to provide overall direction and policy guidance to the NBSAP process. The Steering Committee identified and selected an NBSAP Planning Team of 60 members expertise from all over the country on the basis of their biodiversity and planning expertise. Planning Team members represented the varied sectors, institutions and biodiversity resource users. The Planning Team was the principal technical organ of the NBSAP process. A secretariat office for the project was established at the Institute of Biodiversity Conservation (IBC) The National Project Coordinator was responsible for day-to-day co-ordination of the project activities and served as chairman of the Planning Team The current Ethiopian Biodiversity Strategy and Action Plan (EBSAP) will address interlinked issues comprising biodiversity protection and management for food security(poverty reduction), health and livelihood improvement of the Ethiopian population especially the rural communities (farmers and pastoralists) whose survival depends on the use of natural resources. In parallel it is the first attempt to meet the planning requirements of the Convention as well as the national biodiversity conservation needs. It tries to roll into one of the three sequential processes called for under the Convention (the country study, national strategy, and action plan).

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 ∾

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 147 558 847 .22	Received 246 740 101 .56
Received	2017	Committed 113 854 062 .96	Received 146 617 392 .88
Received	2018	Committed 120 644 222 .01	Received 171 572 153 .40
Received	2019	Committed 147 414 721 .01	Received 194 117 354 .95
Total resources provided:		0	0
Total resources received:		529 471 853 .2	759 047 002 .79

Documentation box

	Explanation
Year	
Recipient / Provider	
Title of project, programme, activity or other	
Total Amount USD	
Sector	
Capacity Building	
Technology Transfer	
Gender Equality	

	Explanation
Channel	
Type of flow	
Financial Instrument	
Type of support	
Amount mobilised through public interventions	
Additional Information	

General comments

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 ∾

1. The green legacy initiative which is started in 2019-2024, It is 5 years consecutive tree planting program at national scale planned to re greening Ethiopia . It is Implemented at national and sub national scale which mobilized all groups of community including the public, private civic society organizations at large. for three consecutive years over 18 billion different types of tree seedlings of agro-forestry, tree and ornamental species planted over 5 million hectare of degraded land. The green legacy campaign is monitored by Prime minister office with multistake holder approach with national technical committee and task force 2. The annual free labor contribution for natural resources management of rural community is being implemented over decade which commits 20 days free labour campaign every April of the years . The free labour contribution for soil and water conservation is mobilized by Ministry of agriculture and natural resources.

The financial and in-kind contribution is being mobilized through public and private investment which is implemented from the national to sub national scale in which ministry of agriculture and natural resources mobilizes the human labor for annual campaign. The community mobilization for natural resources conservation activities are done basically in soil and water conservation making different physical structure which involve all nine regions/sub nationals through organization by ministry of agriculture has supported the implementation of desertification and land degradation.

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			
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	
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

The government of Ethiopia has established Ethiopian Environment forest and climate change Ministry since 2013 for implementation of sustainable development, conservation and utilization policy at national and sub-national level. Annually between 2013-2021 not less than 50 million Ethiopian birr / 1,1 million USD of public fund is allocated for forest sector which is directly related to land degradation and desertification which does not include public fund mobilized at sub national level. There are also project and programs implemented through ministry of agriculture and natural resources, Ministry of water and energy, environment forest and climate change mobilized from bilateral and multilateral agreement. The annual free labor contribution for natural resources management of rural community is being implemented over decade which commits 20 days free labour campaign every April of the years . The free labour contribution for soil and water conservation is mobilized by Ministry of agriculture and natural resources.

General comments

The public faience resources mobilization for DLDD is not as such big that is coherent with the huge national commitment of land degradation neutrality targets. many large scale projects and program s should be designed at national and sub national level with adhere to the different land degradation neutrality targets. The Global mechanism under UNCCD should aggressively work with the national focal institution for mobilization of additional resources

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 ∾

There is considerable amount of private sector involvement in tree planting and land restoration but there is no coordinated and well organized desk which plan and implement and monitor the private sector involvement at national and sub national levels. There should be standalone information desk which supports the private sectors to develop projects and support to get enough access on the financial sources so that the private sector involvement in DLDD implementation could be enhanced to meet the land degradation neutrality targets by 2030.

The national focal ministry should have strong institutional linkage with the sub national or regional level in order to map all private sector actors which enable them to fully involved in DLDD implementation and resources mobilization. The Government commitment in terms of implementation of UNCCD convention should give emphasis on consistent institutional set up from national to sub national where the private sector involvement from region to federal level need to well organized.

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

In general, Ethiopia has not mobilized private domestic and national resources until this reporting 2021 reporting recently AFR-100 has started to support private sector in terms of fencing through TERA project which promising but it is under process, Similarly GGGI/ Global Green growth initiative is also started new program which supports private sector support through technical advise and financial facilitation which would greatly contributes for DLDD implementation of the convention.

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?

The Land degradation neutrality fund which is launched in cop13 in China could be private sector LDN fund which we have not used the resources to be implemented through private public partnership modality. The private sector lack potential capacity of designing land restoration projects in order to tap resources from GEF and GCF as they need further technical support for full participation and engagement

General comments

The delay of cop15 due to pandemic is one of bottle neck for member countries to negotiate and mobilize more resources for the implementation of DLDD and convention. The CRIC meeting for the 20th session should also give due focus and emphasis for better resources mobilization.

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 ∾

The technology transfer and innovation is the slow process which is not fully implemented in Ethiopia. There are ample policies and strategies developed in forest sector which support the implementation of land degradation and combating desertification. however due to lack of sustainable and consistent institutional set up from the federal to region and down to village level the technology transfer and policy implementation is greatly hampered to effectively cascade the policy towards the implementation of the convention.

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
◉ Provided ○ Received	2018	Umbreall project	80,000 USD	Eastern Africa, regional	For 2018 reporting	☐ Agriculture ☒ Forestry ☐ Water and Sanitation ☐ Cross-cutting ☐ Other(specify)		Public sector	Completed	2018		
Total provided:			NaN		Total received:			0				
Total per year 2018 provided:			NaN		Total per year 2018 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.

The umbrella project which is provided for capacity building of 2018 UNCCD reporting has greatly contributed for training of regional expertise on GIS and remote sensing and making awareness creation for decision makers. the 2018 manual reporting was successful in which further training on GIS and remote sensing and verification of SDG-indicators are helpful for verification of the default data on the ground.

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.

The GiS and remotes sensing technology and lack of capacity building in terms of full fledged technical center and materials with advanced knowledge for application of the remote sensing technology for monitoring the SDG indicators of land use and land cover changes, land productivity and organic matter accumulation has created great challenges for technology transfer.

General comments

Technology transfer for the implementation of DLDD at country level would require close coordination between the UNCCD and national focal institution there should be sustainable umbrella projects to support countries in order to enhance their technical skill of verification of the default data submitted through the reporting process. Most of the time the umbrella project which is technically intended to enhance countries capacity towards verification of the strategic indicators of sustainable development goal-15 is delayed for better implementation. The technical and financial support from UNCCD for appropriate reporting is crucial and most important..

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.

The plan of private and domestic resources should follow the private public partnership model. There are good number of private investors engaged in the forest landscape restoration however, the proper tracking of these private investors in not well implemented by respective focal ministry or institution. Hence, there should be separate desk for private sector resources mobilization in order to enhance their financial contribution in meeting the land degradation neutrality targets

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.

The private public partnership business model is now largely promoted by Ethiopian government to bring considerable amount of private sector resources for projects and program in order to support the land degradation neutrality targets. There also community associations which are established to implement forest landscape restoration projects and programs through resource mobilization, hence, the national policy should be endorsed to technically and financially support the private and community based associations to engage in the forest landscape restoration activities which can contribute for land neutrality targets of the nation

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.

The country in current situation requires huge sum of resources for land restoration projects and programs designed at national and sub national level. the basic gaps of the focal institution for the implementation of land degradation neutrality targets are 1. There is great need to enhance the technical capacity and skill of using global earth observation which are pertinent to the strategic objectives of the UNCCD reporting with efficient interpretation of the SDG-15 indicators 2. Good and efficient skill of project designing which is competitive, bankable projects and programs fit to meet the land degradation neutrality targets. 3, We also seek technical support on the negotiation skill on resources mobilization, drought and land tenure

General comments

The Global mechanism under UNCCD need to put more support for better implementation of member countries to mobilize enough financial resources through in incapacitating technical skill in designing proper projects and programs that really address the land degradation neutrality targets

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:

The financial resources mobilization for the implementation of land degradation neutrality target be achieved from bilateral and multilateral sources. Ethiopia is actively participating in all sister conventions of UNFCCC, UNCCD and CBD The financial sources are purely from bilateral and multilateral negotiation. Based on the result obtained from the negotiations and bilateral from conference of parties, different project and program proposals will be developed based on the funding institutions interest and submitted to be potential document of the donors. There is annual community labour contribution for national natural resources conservation campaign at national and sub national level. In the month of April 20 days of farmers labour is contributed for making soil and water conservation activities which is free labour massive soil and water conservation structures are built through in kind and labour contribution One important agency that has many overlapping and complementary activities with the MRD (particularly the MoA) is the Ministry of Water Resources (MWR), which has the overall mandate for development of irrigation and water harvesting schemes for domestic and agriculture use. Although the MWR is to focus on medium and large irrigation schemes, it was observed that MWR staff is involved in small-scale irrigation and rainwater harvesting schemes and often collaborate with the MoA staff at the Woreda level. Most of the extension agents in the MoA do not have specific training on water-related interventions and would need collaboration in developing water-related packages for extension. Since small-scale water harvesting is one the pillars of the Government strategy to attain accelerated rural development, it would be most appropriate and effective if the MWR reports under the MRD. After all, a large section of the current MWR used to be under the MoA and was transferred to MWR in 1994. Furthermore, preliminary information obtained from regional level suggests that the agencies reporting under MRD at the Federal level are not necessarily the same at the Regional and Woreda levels. This creates a disconnection between Federal and Regional levels, making it difficult for MRD to coordinate its own efforts, much less the activities of agencies that are not within its mandates. Urgent attention is required to sort out these institutional issues so that there will be some congruence between the structure at the Federal and Regional levels.

What were the challenges faced, if any?

The challenges faced mainly maintenance of all physical structures build using community labour on degraded land. Most of the physical structures are being built on communal land once the physical structures are established there will be no maintenance and ownership so that the same runoff and erosion will demolish abandon the land hence it would be waste of effort and labour and time of the the rural community Recently, there has been a strong revival of traditional and indigenous institutions to assume a selfhelp and development role in rural Ethiopia. Ethiopian rural society has many important traditional and indigenous institutions that can be strengthened and transformed to assume various development roles. Realizing the potential of these institutions (such as idir, iquab, debo), several NGOs have used these organizations for various development activities including input supply, water harvesting and land rehabilitation. Thus, the Government should make concerted efforts to support and strengthen these indigenous organizations as they have the potential to be an important vehicle for facilitating community-based approaches in natural resources management and self-help development activities. They could be

scaled-up to take the role of cooperatives (which is encouraged by the current Rural Development Strategy) and be a reliable partner in natural resources and rural development. Community-based organizations would play a central role not only in participation but also most importantly in the empowerment of local people as a stakeholder and in providing greater incentive to manage and utilize their natural resources in a sustainable way. The key principle here is that community-based and grassroots institutions must represent and protect local interest. In the past, the emphasis has been on technical fix and even when local institutions existed, they were used to enforce unpopular Government conservation measures (such as community forestry, hillside closure, and labour demanding conservation measures). This has resulted in non-compliance and further degradation of the landscape and the downward spiral. Strong local and community organizations can empower local people (particularly women and the poor), mobilize labour for conservation, rehabilitation and development of land, water and forest resources (reducing the burden on rural women), build infrastructure, provide fertilizer and improved seeds, assist extension and research experts in incorporating indigenous knowledge and practice into technical messages, bring accountability to extension, research and local government officials, create awareness about family planning, and generate positive synergy to address the “vicious cycle” noted earlier.

What do you consider to be the lessons learned?

The lesson we learned from the experience that once the physical soil and water structure is being established it should be handed over to the rural youth group for rural job creation in order to plant various agroforestry trees and high value fruit trees to increase their livelihhod. In a major effort to arrest natural resources degradation, the Government (Natural Resources Management and Regulatory Department, MoA) which has the overall mandate for soil and water conservation, has developed a Five-Year Plan (2000-2004) for various types of on-farm soil and water conservation measures, rainwater harvesting and afforestation activities, for both high rainfall and rain deficit areas[6]. In the high rainfall areas, the target calls for 2.2 million ha of land (on farmers-field) to be brought under various soil and water conservation measures to enhance productivity. The plan acknowledges that there are 643 experts of which 156 are in the Amhare region; 144 in Oromia; and 116 in Tigraye and Southern Nations, Nationalities, and Peoples Regional State (SPNN) (MoA, 2000). Unless there is a dramatic way to increase the number of technical experts in the next few years, the current skilled work force available will be spread too thinly to properly introduce, guide and monitor the activities in close contact with farming communities. Whether they will be able to undertake the training of other paraprofessionals or farmers to meet this target is not clear. In the rain deficit areas, the target set for soil and water conservation (SWC) and the estimated cost to the community and the Government are presented in Annex 1. A careful analysis of these targets and the cost involved (Tables 4 to 9) reveal the following issues that have implication for capacity - building and disseminating innovation the farming population. A key issue here is that how the target set at the national level (Table 5) is translated and implemented at the regional and community levels. Identical targets are set for the Tigraye, Amhare and Oromia regions for SWC activities (125 000 ha for each region); for ridge and furrow (62 000 ha for each region); for contour ploughing (375 000 ha); for flood diversion (3 000 ha each region); and for micro-basin (3 482 ha for each region) (see Tables 5-7). Given that the three regions have vast differences in population size, land area, landscape and farming system, it is perplexing what criteria could possibly have been used to come up with such identical targets. From the broader Government’s objective of attaining rapid agricultural development and rural transformation (not the short-term political consideration), it would seem most appropriate to bring soil and water conservation activities quickly to the vast areas of high agricultural land in Oromia and Southern Nations, Nationalities, and Peoples Regional State (SPNN).

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

Amid growing emphasis on community-based approaches to natural resource management, there are concerns about the lack of women participation in communal decision-making. In Ethiopia the association between women participation in group-level meetings and outcomes is not robust. This implies that women participation in formal decision-making is required to reach forest conservation and livelihood gains.A number of key events and international frameworks have combined to draw attention to the importance of women’s participation and gender mainstreaming in political, economic, social fields, including sustainable forestry (UN 1979). For example, the Convention on the Elimination of All Forms of Discrimination against Women was adopted in 1979 (UN 1979). In subsequent years, further international frameworks were adopted, including the UNFCCC, 1992 (UN 1992b); Earth Summit, 1992 (UN 1992a); UN Millennium Declaration, 2000 (UN 2000). The 2030 agenda for sustainable development (UN 2015d) also, to some extent, concerned women’s participation in social forestry management and climate change mitigation.Ethiopia is one of the countries most affected by deforestation and forest degradation. At the turn of the twentieth century, some 40% of Ethiopia was covered by forest (Von Breitenbach, 1961, Wood, 1991, Yirdaw, 1996). Forest cover fell to 16% in 1950s and to 3% in 1990s (Dessie and Christiansson, 2008). Important proximate causes of forest loss are collection of firewood and charcoal, and agricultural expansion. Underlying causes are population growth, poor agricultural practices and governance, and the country’s land tenure system (Getahun et al., 2013, Assefa and Bork, 2014).policies to increase women in formal leadership positions can contribute to sustainability and a more equitable distribution of the gains from extraction (i.e. benefits accruing to other members than simply the elite). We interpret this is preliminary evidence that policy should try to intervene by encouraging women’s participation in executive committees—for example through quota setting. For instance, a non-binding guideline that at least 50 percent of FUGs’ executive members are female increased the

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

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

Use the space below to share more details about your country's experience:

Ethiopia, natural resources are under the influence of various interconnected factors like population pressure, agricultural expansion, migration, rapid urbanization, resettlement, climate change, and environmental pollution. Its huge population number had been putting a great burden on the sustainability of almost all types of natural resources. There is, therefore, serious degradation of land, water, forest, rangeland, and wildlife resources that appear to feed off each other. This results in severe soil loss, low vegetative cover, unsustainable farming practice, continuous use of dung and crop residues for fuel, overgrazing, and destruction and/or migration of wildlife, which again are intensifying the degradation of available resources in a vicious circle. The process ends with amplified environmental consequences such as water quality deterioration, biodiversity decline, and averts ecosystem services. It further recapitulates towards diverse socio-economic problems, political instability, marginalization, poverty, and recurrent natural hazards. The Ethiopian governments have taken several steps to address these problems like launching soil and water conservation campaign, tree planting programs, and others; success to date, however, has been limited.

Would you consider the action programmes and/or plans to be successful and what do you consider the main reasons for success or lack thereof?

Ethiopia is following an accelerated growth pathway, aiming to achieve broad-based and sustainable economic growth to reduce poverty and become a middle-income country by 2025. The Government of Ethiopia has a stated interest in strengthening the contribution of the for est sector to economic development while ensuring the social and environmental sustainability of this growth. In response, the Ministry of Environment, Forest and Climate Change (MEFCC) requested that a National Forest Sector Development Program (NFSDP) be developed to provide the master plan that serves as the roadmap for future forestry actions at the federal and regional levels. Therefore, the NFSDP is a country-driven initiative. The overall objective of the NFSDP is to increase the value of trees and forests in their different landscape contexts, acknowledging that most of the pressure on these trees stems from outside the forestry sector. The NFSDP will serve as the general framework for the enhancement of sustainable forest management in the country over the next 10 years, that is from 2018 to 2027. The objective of this Situation Analysis document is to support the NFSDP development by providing a comprehensive review and analysis of relevant forest-related policies, strategic documents and activities. This document outlines the status quo of the sector and identifies the main barriers and opportunities for sector development. Further, it serves as the basis for a series of consultative meetings to inform the NFSDP. This analysis relies mainly on existing documents and literature, which are combined with the expertise of the consultants given their long-term experience in Ethiopia and their comprehensive understanding of the issues, challenges and opportunities facing the sector. The forest sector has recently been receiving pronounced attention from the Government of Ethiopia. As a result, there is a significant amount of high quality and recent analytical work that the NFSDP should valorize. These include, amongst others: ▪ the comprehensive sector diagnostics studies carried out for the Forest Sector Review (FSR) and the on-going preparations for the Public-Private Dialogue (PPD) between MEFCC and the private forestry sector, ▪ the national forest inventory (NFI) which provided the much needed update of the state of knowledge regarding the extent and health of Ethiopia's forests, ▪ the REDD+ strategy, which outlines the intersectoral actions that should be undertaken to reduce deforestation and forest degradation, ▪ the recently completed UNDP-supported study of the contribution of forests to national income in Ethiopia and linkages with REDD+, and ▪ the MEFCC Growth and Transformation Plan (GTP) II, which lays out the broadly accepted and ambitious goals for the sector to achieve its growth objectives. With these policy milestones and strategies, national governments and development partners now have the opportunity to adopt a more comprehensive approach for promoting sustainable and productive forestry. This analysis is structured according to the main pillars around which the NFSDP is built, namely: ▪ Sustainable forest production and value chains ▪ Forest environmental services ▪ Forests and rural livelihoods ▪ Urban greening and urban forests ▪ Enabling environment and institutional developmen

What were the challenges faced, if any?

The forest sector in Ethiopia has remained weak, and unable to divulge the potential environmental, social and economic contribution of the sector to the overall development of the country. The sector's contribution to the GDP, import substitution, export diversification as well as employment generation remains very low. The institutional arrangement of the sector has been characterized by frequent structuring and restructuring, not only due to political instability but also during a single political regime, undermining continuity of programs, cumulative learning and innovation. For the past several decades, forestry was hosted as a small unit within the agriculture sector with limited budget and logistic support. This has contributed to its institutional weakness and poor performance. There are also several other barriers to forest sector institutional development. Some of these include: • Lack of a clear vision, forest management objectives and national goal: Forest sector goals and vision are not properly defined for the country, and it has been difficult to understand what the forest management objectives of the country are. National or sub-national land use plans are also absent, and there are no delineated and mapped areas of land for forest development. This is a clear constraint to the development of a vibrant and strong forest institution. The dominant view with regards to forest management objectives in Ethiopia has been protection or conservation. This view has masked the economic importance

of forestry, making it unable to win political attention for sufficient budget and logistic support, and for institutional innovation. • Lack of effective intersector coordination: Coordination among sectors, particularly among those sectors competing for land (forestry and agriculture) has been very weak. In fact, for a long time there has been clear political bias towards agriculture leading to deforestation and forest degradation to be tolerated, law enforcement to remain weak and making it difficult to solicit productive land for forest development. Similarly, coordination among different forest governance levels (federal-regional-local levels) remained weak hindering a coordinated national scale development planning and implementation. • Poor human resource and capacity: Forestry institutions have been understaffed and most of the professionals working in the various offices, particularly at decision-making levels, also lack experience and skills. Therefore, they were unable to design and implement innovative policies, programs and institutional setups to elevate the economic and social roles of forestry. Most staff is directly recruited from university without having extensive practical experience. • Poor engagement of the private sector as agents of change: The forest sector in Ethiopia is characterized by the dominance of public investment with little or no contribution from the private sector. This is also due to the lack of implementation of existing incentives to encourage private sector involvement in the sector.

What do you consider to be the lessons learned?

Overall, the above limitations cause forestry education in Ethiopia to fall short of producing the quality human resources required for sector development. Given the time lags in training high-quality professionals, efforts need to be made immediately if the sector is to play its part in fostering economic development of the country. The curricula should better reflect practical needs; global technological advancements in the field. In order to fulfill the human resource demand of the sector, there is a need to restructure and enhance the available training system (TVET/Universities), particularly with respect to their curricula. Practical-oriented skills should replace theoretical training and growing fields such as bio-technology and forest enterprises, will need to be emphasized. Expansion of the higher education system in the country, coupled with the government's growing interest in the forest sector and expanding private sector involvement are important opportunities to re-think forestry education in the country. Employment is expected to grow in the field. Universities can also have more

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.

The National Constitution provides public ownership of land and other natural resources by providing Federal and Regional Governments the mandate with respect to their management. The Federal government determines and administers the utilization of the waters of rivers and lakes linking two or more regions or crossing the boundaries of the national territorial jurisdiction while the regional states formulate and implement water related policies, strategies and plans within their respective regions. The current government of Ethiopia started with the Agricultural development-led Industrialization (ADLI, 1991) showing the lead role of the sector in tackling the challenge of reducing poverty and providing the foundation for long-term growth. Agriculture is considered as the backbone of Ethiopian economy. Evidently, it sustains livelihoods formore than 85% of the population, contributes up to 45% of the GDP and more than 85% of the export earnings.ADLI has gradually evolved in to various national strategic plans, which includes the current second phase Growth and Transformation Plan (GTP 2015-2020). More recently, the Government of Ethiopia embarked in formulating a national land use policy and a roadmap on the preparation and implementation of a national integrated land use plan. This plan will have multifaceted benefits. It will facilitate

coordination of allocation of land to avoid or minimize sectoral competition and conflict on land use and create a system that regulates land use decisions in the country. It will align national, sectoral and regional demand for land and thereby protect biodiversity and environmental hot spots. The Ethiopian Government plans to make the national land use plan an integral part of the country's next Growth and Transformation plan to be implemented in 2020-2024. Despite the policy approaches made so far, the livelihoods of small-scale farmers are still constrained by many impeding factors. The salient constraints include: small and diminishing farm lands due to large family sizes; soil infertility with decreasing yield-per-hectare; unpredictable patterns of drought; input scarcity and outdated technologies leading to low outputs; shortage of capital; reduced market access; lack of market information; outbreaks of animal diseases and shortages of animal feed; and declining price structures. Conclusively, diminishing land and labor productivity due to land degradation and recurrent drought in the rural economic setting has undermined the gains from the development efforts so far.

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?

What were the challenges faced, if any?

What would you consider to be the lessons learned?

Awareness has also led to action and the Government of Ethiopia (supported by various donors, international agencies and NGOs), has made large scale investment in soil conservation and land rehabilitation measures. The rehabilitation of degraded lands, which started through food-for-work relief assistance following the 1974-1975 famine, has become a major component of the Government's approach to mitigate the impact of soil degradation in many regions of Ethiopia. This approach has focused on a) soil and water conservation; b) construction of terraces, check dams, cut-off drains and micro-basins, and c) afforestation and vegetation of fragile and hillside areas. The focus was on building physical structures to control soil erosion and to rehabilitate degraded lands and massive efforts were undertaken in this regard. This effort has resulted in many ecological benefits such as restoring farmlands, increasing soil depth, water holding capacity and improved woodlot and pastureland (Tato, 1991; and interview with current and previous soil and water conservation experts and officials in MoA). As important as these ecological benefits were, the large-scale soil conservation efforts of the 1970s and 1980s had some serious shortcomings. First, these structural conservation measures were found to be too costly. After all the investment, not more than 10 percent of the cultivated land has been covered (Hurni, 1990). For example, it was observed that the labour input required for constructing fanaya juu bunds is ten times more than planting grass strips, which are reasonably effective in reducing soil loss and increasing moisture content and water infiltration (Kejela and Fentaw, 1992). Second, farmers were reluctant to adopt such labour intensive measures (without getting tangible benefits in terms of food or income). Third, there was little systematic effort made to incorporate indigenous soil and water techniques, and not to consider the loss of farmland for conservation (Kruger et al, 1996). Finally, there is no obvious relationship between this large investment in land rehabilitation on one hand and improvement in the food security and income of farmers on the other. This has also been observed by several other studies (edited by Assefa, 1999; Dejene, 1990; Hurni and Tato, 1992).

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

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.

The Government of Ethiopia has adopted a revised Disaster Risk Management (DRM) policy whose overall objective is to reduce the risks and impacts of various types of disasters including drought through the establishment of a comprehensive and integrated disaster risk management system within the context of sustainable development. Further, DRM Strategic Framework and Investment Program (DRMSFIP) is developed based on the revised DRM policy and on the priorities enshrined in the Hyogo Framework for Action (HFA). The formulation of the DRM Policy heralded a radical shift from reactive response to drought emergencies to proactive management of risk through multi-sector approach including risk analysis and profiling. On the other hand, the government has developed and implemented the Ethiopian Sustainable Land Management Investment Framework with the aim of alleviating rural poverty through building resilience of ecosystems and livelihoods. The Climate-Resilient Green Economy Strategy (CRGE, 2011) of Ethiopia also outlines a green economic growth path that fosters development and sustainability. More recently, Ethiopia has also prepared a Country Programming Paper (CPP), which addresses the very important issue of ending drought emergencies in the Horn of Africa (FDRE, 2012) and has been prepared in response to the Nairobi Declaration which resulted from the IGAD Heads of States Summit held in 2011.As an integral and important part of the drought resilience initiative, it is envisaged that the CPP establishes firm linkages with actors on the ground. Theseall initiatives show that the Government of Ethiopia has strong recognition for the challenge posed by recurrent drought on the country's food security (FDRE, 2013) and political stability. Therefore, the country has laid strong focus on transformative development initiatives anchored by its policies and strategies which are fertile ground for undertaking development activities in drought affected areas of the country. Since the main development agenda of the Ethiopian government is poverty reduction, all policies and strategies are geared towards this end. There is a wide national consensus on taking poverty reduction as a development priority of the nation. During the GTPII period,special emphasis is given to rural development, industry and infrastructure as core priority areas of focus (FDRE, 2013). The existing commitment of the government provides not only political and policy space both at national and regional levels but also an opportunity for allocation of more resources to combat the scourges of recurring droughts in the country. In addition,non-government actors have enhanced interest to support national as well as regional initiatives, whichwill provide an impetus for the implementationof the NDP. Key to the implementation of the NDP is the creation of the National Drought Plan Task Force. Under escalating drought conditions, mandates and actions should be identified for this Task Force, National Disaster Risk Management Commission (NDRMC) providing overall guidance and facilitation for the Task force. The Government of Ethiopia has also developed a Climate Resilient Green Economy (CRGE), which was launched in 2011, recognizing the negative impacts of the climate change on its economy. The vision of the CRGE is supported by two national strategies: The Green Economy (GE) Strategy and the Climate Resilient Strategy, which builds on NAPA 2007 and EPACC 2011. The agriculture and forestry sectors are key to both national income and household livelihoods. Combined, the sectors produce 43% of our Gross Domestic Product (GDP) and employ the vast majority (around 80%) of the country's population. Due to a strong reliance on the rain-fed techniques, agriculture is highly vulnerable to weather and thus to future impacts of climate change. In addition, future climate change is expected to pose significant impacts on the productivity of our forests. The weather and climatic phenomena during the last fifty years have shown the inevitability of the negative impacts on agriculture. For instance, drought alone is expected to reduce GDP by 10% or more by 2050. Ethiopia also has the National Adaptation Plan (NAP) that complements the vision of CRGE. The goal of NAP (2016-2030) is to reduce vulnerability to the impacts of climate change by building adaptive capacity and resilience. NAP-ETH aims to strengthen holistic integration of climate change adaptation in Ethiopia's long-term development pathway, supported by effective institutions and governance structures, finance for implementation and capacity development and strengthened systems for disaster risk management and integration among different sectors. NAP-ETH focuses on the sectors that have been identified as most vulnerable, namely: agriculture, forestry, health, transport, power, industry, water and urban. Within these sectors, 18 adaptation options have been identified for implementation at all levels and across different development sectors, recognizing the considerable diversity in context and vulnerability across Ethiopia's regions and social groups. Ethiopia has established a national program of adaptation to climate change (EPACC - 2011), as a tool for implementing the climate resilient green economy (CRGE) strategy (2011). The Growth and Transformation Plan (GTP) emerged as a holistic planning architecture through, which multi-sectoral policies and strategies are translated into mega programs that are in turn implemented through medium to large scale projects. Therefore, macro-economic planning and performance processes, including multiple programs and international and regional cooperation such as SDG, IDDRSI, CAADP, UN led initiatives, and bilateral cooperation are embedded within GTP, which is a five-year plan and it covers the period of 2010 to 2025. Currently, the country is implementing its second 5 years plan (GTP II).

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

The Ethiopian Drought Plan contains the drought preparedness and response measures of the country. It contains the state of drought, its monitoring approach, legislative needs, other responses measures, the communications process and state and non-state actors. It also contains key actors, suggested programs and activities that will limit vulnerability to drought within the country and for the different sectors. This Plan cannot be considered a final one and should dynamically change as required. It is intended that the NDP will be the core of the drought related activities in Ethiopia. The National Drought Plan will be a comprehensive national framework document, the implementation of which requires a coordinated national drought management system together with preparedness and response measures. The NDP, supported by sectoral response plans in different geographic areas in the country will include a strong early warning capability that will support water users, land managers, and decision-makers with advance notice so that they can prepare for drought and reduce the need for costly emergency response measures. The principal intent of the NDP is to establish a flexible framework to refine the country's drought monitoring process, create clear understanding of drought impacts, and design mechanisms for limiting future vulnerability. The most urgent need for drought planning is in the growing communities in the arid and semi-arid rural parts of the country, where alternative water supplies are generally very limited, and the economy is strongly affected by drought (particularly livestock, irrigation, and forestry-related

activities). There is also a need for improved drought preparedness on national priority areas, including Regional and National Parks, because drought has significant impact on the flora and fauna of such economically and environmentally important ecosystems. The intent of this NDP is to empower regional governments, resource managers, and the general public through improved access to information on historic and current climate conditions and identification of options to enhance preparedness and response. The NDP's implementation can reduce the short, medium and long term impacts of drought occurrences. It can be a good leverage to the Disaster Risk Management plan, as drought is the major Natural incident responsible for major socio economic disasters in the country. it incorporates the elements of drought plan in the planning process. NDP is not about crisis management,but it also addresses development interventions and capacities that ensure economic growth and development besides the drought constraint. The major contribution and dependency in alleviating the impact of the scourge of a series of droughts has been possible only through heavy dependency on hand outs and financial support given by Donors. There is no guarantee that this type of condition will continue, and hence the implementation of drought resiliency programs, through a NDPis important to change this chronic dependency on outside support. Due to fast population growth and other socio-economic issues, dependency on outside support may not be practical in the foreseeable future, without compromising national sovereignty. This situation can be clearer when we observe how aid requiring population during strong El Nino years has shown a sharp increase from the 2002 case to the 2015 case and this was in spite of the fact that all the necessary instruments of Disaster Risk management have been put in place. What this has changed is only with regard to the number of people who died, not to the number of people who needed food assistance.

What were the challenges faced, if any?

The challenges related to the implementation of national drought plan is the lack of cross sectoral cooperation among different line ministries for instance the environment forest and climate change commission, the ministry of agriculture and disaster risk minimization commission ministry of health need to mainstream the national drought plan for better planning and implementation.

What would you consider to be the lessons learned?

The national drought plan should be regional plan in which drought related flagship program and projects need to be designed at broader scale where IGAD countries should exchange experience on the cross boder drought mitigation and management activities.

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

What types of SLM practices are being implemented?

- ☒ Agroforestry
- ☒ Area closure (stop use, support restoration)
- ☒ Beekeeping, fishfarming, etc
- ☒ Cross-slope measure
- ☒ Ecosystem-based disaster risk reduction
- ☒ Energy efficiency
- ☒ Forest plantation management
- ☐ Home gardens
- ☒ Improved ground/vegetation cover
- ☒ Improved plant varieties animal breeds
- ☒ Integrated crop-livestock management
- ☒ Integrated pest and disease management (incl. organic agriculture)
- ☒ Integrated soil fertility management
- ☐ Irrigation management (incl. water supply, drainage)
- ☒ Minimal soil disturbance
- ☒ Natural and semi-natural forest management
- ☐ Pastoralism and grazing land management
- ☐ Post-harvest measures
- ☒ Rotational system (crop rotation, fallows, shifting, cultivation)
- ☒ Surface water management (spring, river, lakes, sea)
- ☒ Water diversion and drainage
- ☒ Water harvesting
- ☐ Wetland protection/management
- ☐ Windbreak/Shelterbelt
- ☐ Waste management / Waste water management
- ☐ Other (please specify)

Use the space below to share more details about your country's experience:

In Ethiopia serious long-term land degradation of communal areas and farmlands results in substantial losses to the economy. The combination of fragile soils, steep slopes, agro-climatic conditions, environmentally unsustainable intensification of agriculture, and traditional cultivation techniques practiced by smallholder farmers over many decades led to serious land degradation. The process has led to excessive soil erosion and land degradation. Around 2005–2006, the annual cost of land degradation in Ethiopia was estimated to be in the range of 2–3 percent of the country's agricultural gross domestic product (World Bank 2007), a significant loss in a country where agriculture accounts for nearly 50 percent of the gross domestic product and is the source of livelihood for more than 85 percent of the country's more than 100 million inhabitants. Land degradation is a major cause of low and declining agricultural productivity, rural poverty, and food insecurity in Ethiopia. Farming systems have been largely dominated by low-input cereal production, which provides insufficient ground cover during the period of most erosive rainfall, and livestock production, which is mainly based on open access to grazing lands in woodlands and forests. Population growth pressures and the expansion of grazing (75 percent of the country's 35 million cattle graze in the agricultural areas of the highlands) have contributed to a loss of vegetation cover on hillsides and accelerated gully formation. Simultaneously, the widespread use of crop residues as livestock feed and the diversion of animal manure as fuel have reduced soil organic matter, further accelerating land degradation and soil nutrient depletion. The high dependence on wood and other biomass for household energy (95 percent of national energy consumption) and the expansion of agriculture into forested areas have reduced forest cover over the past century from 40 percent to 2.4 percent of the total land area in 2005. Sustainable land management (SLM) practices are required to address the serious land degradation that is already being exacerbated by climate change

Would you consider the implemented practices successful and what do you consider the main factors of success?

The two time series projects introduced SLM practices and improved livelihood activities insignificant areas of the highlands. The two projects treated more than 860,000 hectares of degraded landscapes in 1,820 micro-watersheds, attaining about 98 and 95 percent of the projects' revised and original targets, respectively, in promoting the adoption of improved land management practices on communal land and individual farmlands managed by households. In addition, agroforestry activities and area closures to limit free grazing led to a 5.2 percent increase in vegetation cover and moisture retention in the targeted watersheds. The projects also supported the issuance of landholding certificates, benefiting smallholder farmers and landless youth, who reportedly received holding rights in exchange for managing communal lands. The projects also supported livelihood activities through improved livestock production as well as poultry and beekeeping.

What were the challenges faced, if any?

What do you consider to be the lessons learned?

How did you engage women and youth in these activities?

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

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

Please use this space to share/list the established systems available in your country for sharing information and knowledge and facilitating networking on best practices and approaches to drought management.

Acacia decurrens become the dominant tree species in Awi zone that covers vast area of land. Significant number of small holder farmers is now highly using it as the main source of income for supporting their livelihoods. In the highlands of Awi zone, there is higher rainfall amount (average rainfall is 1750mm/year) that resulted in to nutrient leaching problem and the associated soil acidity. Hence, A. decurrens has been widely used for improving the soil fertility on acidified soil by converting acidic crop land into productive cultivable land. Acacia decurrens plantation also contributes for restoration of degraded land. It is widely practiced partly as one of agroforestry system known as tangua system where inter-cropping is practiced until the canopy of the tree gets closed. Through the process of seedling production, site preparation, plantation establishment, harvesting, processing and marketing of acacia decurrens, large number of labor is involved in the system across the value chain. Hence, acacia decurrens is now become popular species for its economic uses that has great potential for combating desertification, land degradation and to enhance adaptation capacity in the region. It has great land reclamation potential for acidic soils especially where Nitisols dominate, in order to resolve the problem of fixing phosphate fertilizers by forming aluminum and iron phosphate. Through phosphate fixation the nutrient becomes unavailable to plants thereby reduce the production and productivity of cereals and pulses.Market-oriented agroforestry interventions (for example, Acacia decurrens) that bring sustainable income for smallholders can be vital ingredients in creating incentives for the adoption of biological measures for land restoration and improving resilience to climate shocks. Agroforestry systems, such as Acacia decurrens, that bring additional benefits through nitrogen fixation while also generating cash income are vital win-win options for land restoration, income growth, and asset creation. The lesson is that in the microwatersheds where such market-oriented agroforestry practices have been supported (for example, Akusty in Fagita Lekoma, Amhara), this has induced transformational changes in restoring highly degraded landscapes, creating employment, generating income, and reducing poverty and out-migration.

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

There is two prominent driving or push factors for the adoption and extensive plantation of acacia decurrens in Awi zone. Based on the information gathered during the interview with the farmers and experts, there were severe problem of soil nutrient leaching due to presence of high rainfall amount in the area. The average annual rainfall amount of Awi zone is 1750mm while it is 2000mm for Fagita Lekoma district. The other push factor to adopt this tree is the presence of soil erosion or land degradation due to higher erosive capacity of the rainfall accompanied with poor land management practice at the time. Hence, these two factors, leaching and land degradation, contributed to the less productivity of the area and reduced annual crop yield. This low soil productivity was then become the root cause of poverty and even initiated migration of rural families to other lowland areas. Head of Awi zone agriculture office, Ato Ajebe Seneshaw, explained the same way that it was a serious concern for the Zonal administration that worried them their community were vulnerable to migration due to less productivity. The experiences of farmers shows how land degradation has affected their livelihood and even to cause migration before the introduction and development/application of acacia decurrens both for improving cropland productivity and generating reasonable income from its wood products by the framers. Farmers were vulnerable to extreme poverty.

What were the challenges faced, if any?

Challenges and General observation in the process of the practice Though the practice is well accepted and widely implemented by farmers and community groups, there are several issues or challenges that we observed in the process of the development, harvesting, production and marketing of products. These issues demands appropriate and timely measures to be taken to sustain the positive role of the practice for social, environmental and economic aspects. We observed the following general concerns and issues for future action. Charcoal production is widely practiced throughout the district just on the same plot of land where they harvested using traditional heap processing method. No farmer is currently using charcoal producing kiln technology. Hence, there is no scientific charcoal producing procedure and no optimum limit in production per day and per site. As observed and the information from some people, every early morning we feel the smell of smoke. We have heard also that, before some years back GIZ attempted to introduce Kiln technology, but farmers‟ stopped after few practice due to irregular carbonization process and also due to limit of production per day with the technology. According to the information there is limit of charcoal production per day per Kebele in using kiln. So, the human and animal health related cases and environmental/air pollution aspect needs to be researched and come up with recommendations. The forestry sector institution is fragmented from region down to district level. Plantation stand establishment and management is handled in the agriculture sector while utilization and regulatory activities are mandated to the environment, forest and wildlife conservation and management authority that have only one forestry expert at zonal and district level. In addition, the number of forestry experts with in the district office of agriculture is too limited to properly and timely deliver the required service to customers as number of customers/farmers, traders/ of this practice is increasing from time to time. For example large number of farmers comes to district office of agriculture to get felling permit and charcoal merchants/dealers to pay royalty fee and get transport permit of products every day. Hence farmers are expected to wait for half day, some time for a day and even

for two day only to get felling permit

What would you consider to be the lessons learned?

The contribution of forestry sector in Amahara regional state is progressing in promising way. The small holder and state owned forests contributed a lot for the region and at national level. Small holder wood lots and communal and state/enterprise owned plantation forest contributes significantly to both the region and national GDP growth. The region has immense potential for the forestry sector transformation, forest industry and regional economic and livelihood improvement. However the forest governance of the region is disintegrated and handled by two different institutions (bureau of agriculture and Environment, Forest and Wildlife Conservation and development Authority) that weaken the role of the sector to play to its full potential. If the region has well organized and strong forest governance system and integrated institution, its contribution would become more than its current contribution. Farmers in Awi zone, Fagita Lekoma district, have seen accepted and practiced the development and utilization of acacia decurrens to solve their productivity and land degradation related problems. Currently, acacia decurrens is widely accepted by farmers and spread almost throughout the district of Fagita Lekoma. Framers have proofed acacia decurrens planation is a solution for their problem. They are progressively improving their practice and production as well as their land management. Their land value has been increased as a result of this practice. Charcoal production is solely following traditional carbonization processes. Though the current market value for their product is profitable, it needs to consider reducing role of brokers to secure their benefit and sustainability of the practice. Scaling up of the practice in to other similar areas is worthy.

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

- ○ Yes
- ◉ No

AI: Additional indicators

Which additional indicator is your country using to measure progress towards strategic objectives 1, 2, 3 and 4?

Indicator	Relevant strategic objective	Change in the indicator	Comments
The IUCN AFR-100 implimentation indicators	SO1	Increasing	
National monitoring of Forest landscape restoration	SO1	Increasing	

RC: Recalculations

RC.T1: Recalculation of the baseline period, as reported in 2018.

Indicator recalculated	Justifications	Explanatory information	Quantitative impact of the recalculations on baseline	Impact of the recalculations on national targets
SO1-1 Trends in land cover	☐ Changes in methodology ☒ New and improved data ☐ Correction of errors in a previous version of the data ☐ Other adjustment	The data is triangulated with the national reporting data, global land outlook and FRA2020	The forest/tree covered area showed increment from 2018 reporting	The recalculation is impact full to show the Forest landscape restoration programs are in the right truck to meet LDN targets by 2030
SO1-2 Trends in land productivity or functioning of the land	☐ Changes in methodology ☐ New and improved data ☐ Correction of errors in a previous version of the data ☐ Other adjustment			

AA: Affected areas

Do you wish to report on affected areas in addition to national reporting?

- (●) Yes
- ( ) No

Reporting on affected areas only is an optional reporting element and is additional to national reporting.

Does your country define “affected areas” as defined in Article 1 of the Convention as “arid, semi-arid and/or dry sub-humid areas affected or threatened by desertification”?

- (●) Yes
- ( ) No

SO1-1 Trends in land cover

Land area

SO1-1.T1: Estimates of the total land area of the affected area

Year	Total affected area (km²)	Water bodies (km²)	Total country area (km²)	Comments

Land cover legend and transition matrix

SO1-1.T2: Key Degradation Processes

Degradation Process	Starting Land Cover	Ending Land Cover

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

- ○ Yes
- ○ No

SO1-1.T3: Land Cover Legend

Country legend class	Country legend class code	UNCCD legend class

SO1-1.T4: Country Land Cover Legend Transition Matrix

Original/ Final

Degradation	Improvement	Stable
-	+	0

Land cover

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

	No data (km²)

Land cover change

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

	Total (km²)
Total	

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

	Total land area (km²)
Total	

Land cover degradation

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

	Area (km²)	Percent of total affected area (%)
Land area with degraded land cover		-
Land area with non-degraded land cover		-
Land area with no land cover data		-

	Area (km²)	Percent of total affected area (%)
Land area with improved land cover		-
Land area with stable land cover		-
Land area with degraded land cover		-

	Area (km²)	Percent of total affected area (%)
Land area with no land cover data		-

General comments

The default data is supposed to be national data for land use/cover change in Ethiopia, which was triangulated with different data sources compared with the recent information for national forest monitoring systems. The data used for triangulation include national forest monitoring system from 2013-2019, global land outlook and Global forest resources assessment (FRA-2020). The forest cover in the default national data on praise-4 shows similar increasing trend with the data obtained from the national forest monitoring system from 2013-2019. However, the data for tree covered area as forest estimates in praise-4 has slight difference with the national resources assessment of the 2019. The estimate in either cases used different satellite for observation of the data and classification methodology for land use/land cover classification. There is also difference in types of land use and land cover classifications system used by different forest monitoring systems. The forest land cover estimate of FRA 2020 also shows slight increase in area than what was estimated in Praise -4 because of the difference in the types of satellite observations. . With respect to the land classification system, in global forest resources assessment of 2020 indicated that forest, other wooded land, other land were used for classification while the UNCCD praise-4 has seven land use land cover classes based on IPPC guideline. Hence, data for tree covered area shows 240415 km2 for target year 2019 as compared to 214395 km2 in baseline year 2000 has significant increase based on IPPC classification. More or less Ethiopia accepted the default land use/land cover data for the reporting process of 2022

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

Land productivity dynamics

SO1-2.T1: Affected area 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						
Grasslands						
Croplands						
Wetlands						
Artificial surfaces						
Other Lands						
Water bodies						

SO1-2.T2: Affected area 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						
Grasslands						
Croplands						
Wetlands						
Artificial surfaces						
Other Lands						
Water bodies						

SO1-2.T3: Affected area 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)

SO1-2.T4: Affected area 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)

Land Productivity degradation

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

	Area (km²)	Percent of total affected area (%)
Land area with degraded land productivity		-
Land area with non-degraded land productivity		-
Land area with no land productivity data		-

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

	Area (km²)	Percent of total affected area (%)

	Area (km²)	Percent of total affected area (%)
Land area with improved land productivity		-
Land area with stable land productivity		-
Land area with degraded land productivity		-
Land area with no land productivity data		-

General comments

The indirect evaluations methods were applied for estimation of land productivity. That is basically done by developing and applying models of varying complexity, thereby attempting to estimate land productivity. Land productivity can be determined using index based parametric approach by using GIS and earth observatory methods. Hence, land productivity is an essential variable for detecting and monitoring active land transformations typically associated with land degradation processes. It can be expressed as an equivalent of terrestrial NPP per unit of area and time that reflects the overall capacity of land to support biodiversity and provide ecosystem services. Trends in land productivity has been adopted by the United Nations Convention to Combat Desertification (UNCCD) as one of three biophysical progress indicators for mandatory reporting and proposed as sub-indicator for monitoring the progress towards achieving Sustainable Development Goal target 15.3.1. Hence, the estimate for land productivity in the national default data in praise-4 showed similar increasing trend with the national forest monitoring data. Specifically, covered area, grass land and cropland class showed increasing trend in terms of increase in the land net productivity. As indicated in the default data for land productivity it has increased by 48.8% from in the total land productivity which makes it more significant increase for progress made as strategic indicator meeting SDG goal -15 of land restoration. Hence, Ethiopia accepts the default data for national reporting of UNCCD for 2022

SO1-3 Trends in carbon stocks above and below ground

Soil organic carbon stocks

SO1-3.T1: Affected area 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							
2001							
2002							
2003							
2004							
2005							
2006							
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							
2016							
2017							
2018							
2019							
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: Affected area 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)

SO1-3.T3: Affected area 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)

Soil organic carbon stock degradation

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

	Area (km²)	Percent of total affected area (%)
Land area with degraded soil organic carbon (SOC)		-
Land area with non-degraded SOC		-
Land area with no SOC data		-

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

	Area (km²)	Percent of total affected area (%)
Land area with improved SOC		-
Land area with stable SOC		-
Land area with degraded SOC		-
Land area with no SOC data		-

General comments

The decreasing trend in the soil organic carbon stock is among the significant universal indicators for land and soil degradation and compromises efforts to achieve the SDGs. Especially those with reference to food, health, water, climate, and land management. In the national default data asi indicated in the praise-4 portal, there is different from what has been reported in Praise-3 portal reporting system for each land use/cover classes. The figures indicated in the online reporting are much larger than what has been reported in the previous reporting. There may be inconsistent units used in the different reporting cycles. Hence, the SOC stock is arguably an important indicator for land and soil degradation among others. In geneneral, as an important strategic indicator, the soil organic carbon data is quite different from 2018 reporting.

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

Proportion of degraded land over the total affected area

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

	Total area of degraded affected area (km²)	Proportion of degraded land over the total land area (%)
Baseline Period		-
Reporting Period		-
Change in degraded extent	NaN	

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:

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						
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.
3.
4.
5.
6.
7.
8.
9.
10.

General comments

The extent of land degradation exhibited from the total area in the reporting cycle has significant difference for the different report cycles. In the first reporting cycle which was done from 2000-2015, the rate of total degradation as SDG-15 indicator is 8.2%; while in the second reporting cycle from 2015-2019 it is increased to 17.9%. The increase in rate of degradation can be directly related the increase in population size in Ethiopia which currently expected to be 120 million. The world resources assessment with Ethiopian Environment Forest and Climate change has made the national priority maps that identified about 55 million hectare of land is categorized degraded. Based on the methodology used for estimation of land degradation, the figure for land degradation estimation also defers in area coverage.

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)

Qualitative assessment

SO2-1.T3: Interpretation of the indicator

Indicator metric	Change in the indicator	Comments

General comments

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

Proportion of population using safely managed drinking water services

SO2-2.T1: Affected area 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			
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			

Qualitative assessment

SO2-2.T2: Interpretation of the indicator

Change in the indicator	Comments

General comments

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: Affected area 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						
Reporting period						

Qualitative assessment

SO2-3.T2: Interpretation of the indicator

Change in the indicator	Comments

General comments

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

Drought hazard indicator

SO3-1.T1: Affected area estimates of the land area in each drought intensity class as defined by the Standardised 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					
2001					
2002					
2003					
2004					
2005					
2006					
2007					
2008					
2009					
2010					
2011					
2012					
2013					
2014					
2015					
2016					
2017					
2018					
2019					
2020					
2021					

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

	Total area under drought (km²)	Proportion of affected area under drought (%)
2000		-
2001		-
2002		-
2003		-
2004		-
2005		-
2006		-
2007		-
2008		-
2009		-
2010		-
2011		-

	Total area under drought (km²)	Proportion of affected area under drought (%)
2012		-
2013		-
2014		-
2015		-
2016		-
2017		-
2018		-
2019		-
2020		-
2021		-

Qualitative assessment:

General comments

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: Affected area 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 affected area 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		-		-		-		-		-	-	-
2001		-		-		-		-		-	-	-
2002		-		-		-		-		-	-	-
2003		-		-		-		-		-	-	-
2004		-		-		-		-		-	-	-
2005		-		-		-		-		-	-	-
2006		-		-		-		-		-	-	-
2007		-		-		-		-		-	-	-
2008		-		-		-		-		-	-	-
2009		-		-		-		-		-	-	-
2010		-		-		-		-		-	-	-
2011		-		-		-		-		-	-	-
2012		-		-		-		-		-	-	-
2013		-		-		-		-		-	-	-
2014		-		-		-		-		-	-	-
2015		-		-		-		-		-	-	-
2016		-		-		-		-		-	-	-
2017		-		-		-		-		-	-	-
2018		-		-		-		-		-	-	-
2019		-		-		-		-		-	-	-
2020		-		-		-		-		-	-	-
2021		-		-		-		-		-	-	-

SO3-2.T2: Affected area 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		-		-		-		-		-	-	-
2001		-		-		-		-		-	-	-
2002		-		-		-		-		-	-	-
2003		-		-		-		-		-	-	-
2004		-		-		-		-		-	-	-
2005		-		-		-		-		-	-	-
2006		-		-		-		-		-	-	-

	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	%
2007		-		-		-		-		-	-	-
2008		-		-		-		-		-	-	-
2009		-		-		-		-		-	-	-
2010		-		-		-		-		-	-	-
2011		-		-		-		-		-	-	-
2012		-		-		-		-		-	-	-
2013		-		-		-		-		-	-	-
2014		-		-		-		-		-	-	-
2015		-		-		-		-		-	-	-
2016		-		-		-		-		-	-	-
2017		-		-		-		-		-	-	-
2018		-		-		-		-		-	-	-
2019		-		-		-		-		-	-	-
2020		-		-		-		-		-	-	-
2021		-		-		-		-		-	-	-

SO3-2.T3: Affected area 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		-		-		-		-		-	-	-
2001		-		-		-		-		-	-	-
2002		-		-		-		-		-	-	-
2003		-		-		-		-		-	-	-
2004		-		-		-		-		-	-	-
2005		-		-		-		-		-	-	-
2006		-		-		-		-		-	-	-
2007		-		-		-		-		-	-	-
2008		-		-		-		-		-	-	-
2009		-		-		-		-		-	-	-
2010		-		-		-		-		-	-	-
2011		-		-		-		-		-	-	-
2012		-		-		-		-		-	-	-
2013		-		-		-		-		-	-	-
2014		-		-		-		-		-	-	-
2015		-		-		-		-		-	-	-
2016		-		-		-		-		-	-	-
2017		-		-		-		-		-	-	-
2018		-		-		-		-		-	-	-
2019		-		-		-		-		-	-	-
2020		-		-		-		-		-	-	-

	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	%
2021		-		-		-		-		-	-	-

Qualitative assessment

Interpretation of the indicator

General comments

SO3-3 Trends in the degree of drought vulnerability

Drought Vulnerability Index

SO3-3.T1: Affected area 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			
2019			
2020			
2021			

Method

Which tier level did you use to compute the DVI?

☒ Tier 3 Vulnerability Assessment ⓘ

Social Factor	Which factors did you use per vulnerability component at national level?	Select all the factors for which data were available for the affected area using the check boxes provided
Literacy rate (% of people aged 15+)	☐	☐
Life expectancy at birth (years)	☐	☐
Population aged 15-64 (%)	☐	☐
Government effectiveness	☐	☐
Refugee population (%)	☐	☐
Other (Please specify)	☐	☐

Economic Factor	Which factors did you use per vulnerability component at national level?	Select all the factors for which data were available for the affected area using the check boxes provided

Economic Factor	Which factors did you use per vulnerability component at national level?	Select all the factors for which data were available for the affected area using the check boxes provided
Proportion of the population below the international poverty line	☐	☐
GDP per capital	☐	☐
Agriculture % of GDP	☐	☐
Energy consumption per capital	☐	☐
Other (Please specify)	☐	☐

Infrastructure Factor	Which factors did you use per vulnerability component at national level?	Select all the factors for which data were available for the affected area using the check boxes provided
Proportion of the population using safely managed drinking water services	☐	☐
Total renewable water resources per capital	☐	☐
Cultivated area equipped for irrigation (%)	☐	☐
Other (please specify)	☐	☐

Qualitative assessment

SO3-3.T2: Interpretation of the indicator

	Change in the indicator	Comments

General comments

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: Affected area estimates of the Red List Index of species survival

Year	Red List Index	Lower Bound	Upper Bound	Comment
2000				
2001				
2002				
2003				
2004				
2005				
2006				
2007				
2008				
2009				
2010				
2011				
2012				
2013				
2014				
2015				
2016				
2017				
2018				
2019				
2020				

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

General comments

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

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

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

Qualitative assessment

SO4-3.T2: Interpretation of the indicator

Qualitative Assessment	Comment

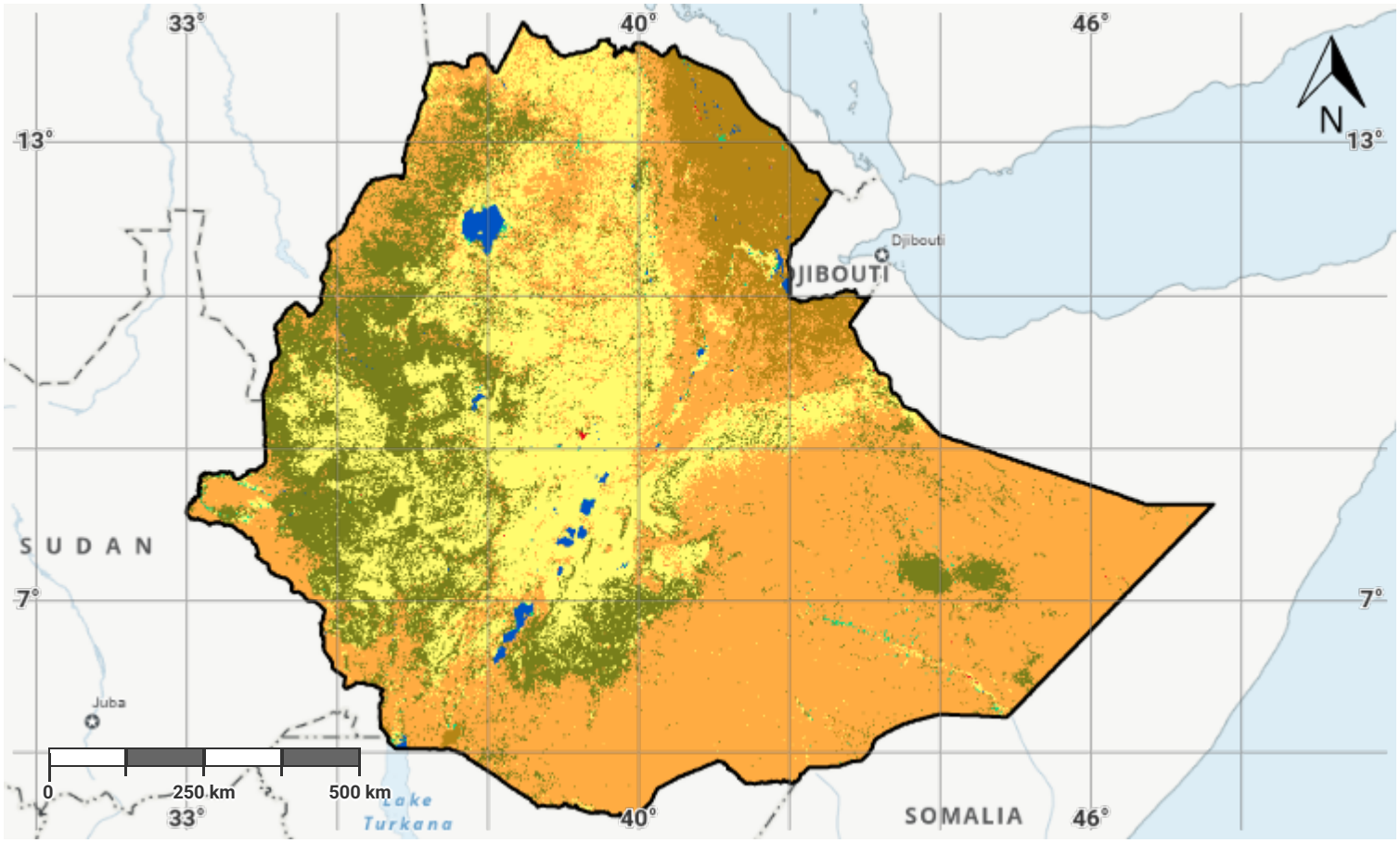
General comments

Other files for Reporting

Ethiopia - SO5-1 recipient	Download	190.3 KB

Ethiopia – 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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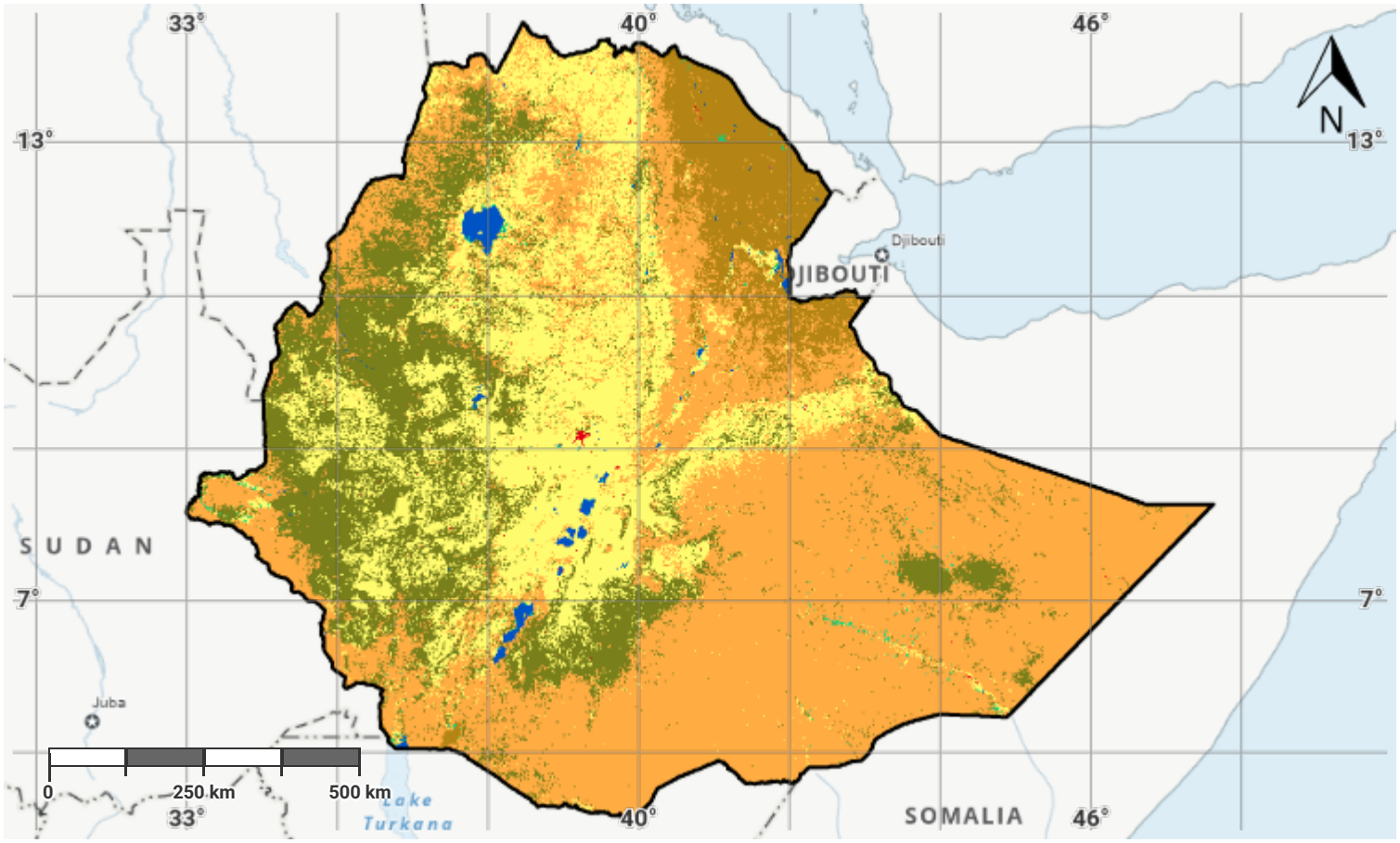
Source Data Credits

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

Ethiopia – SO1-1.M2

Land cover in the baseline 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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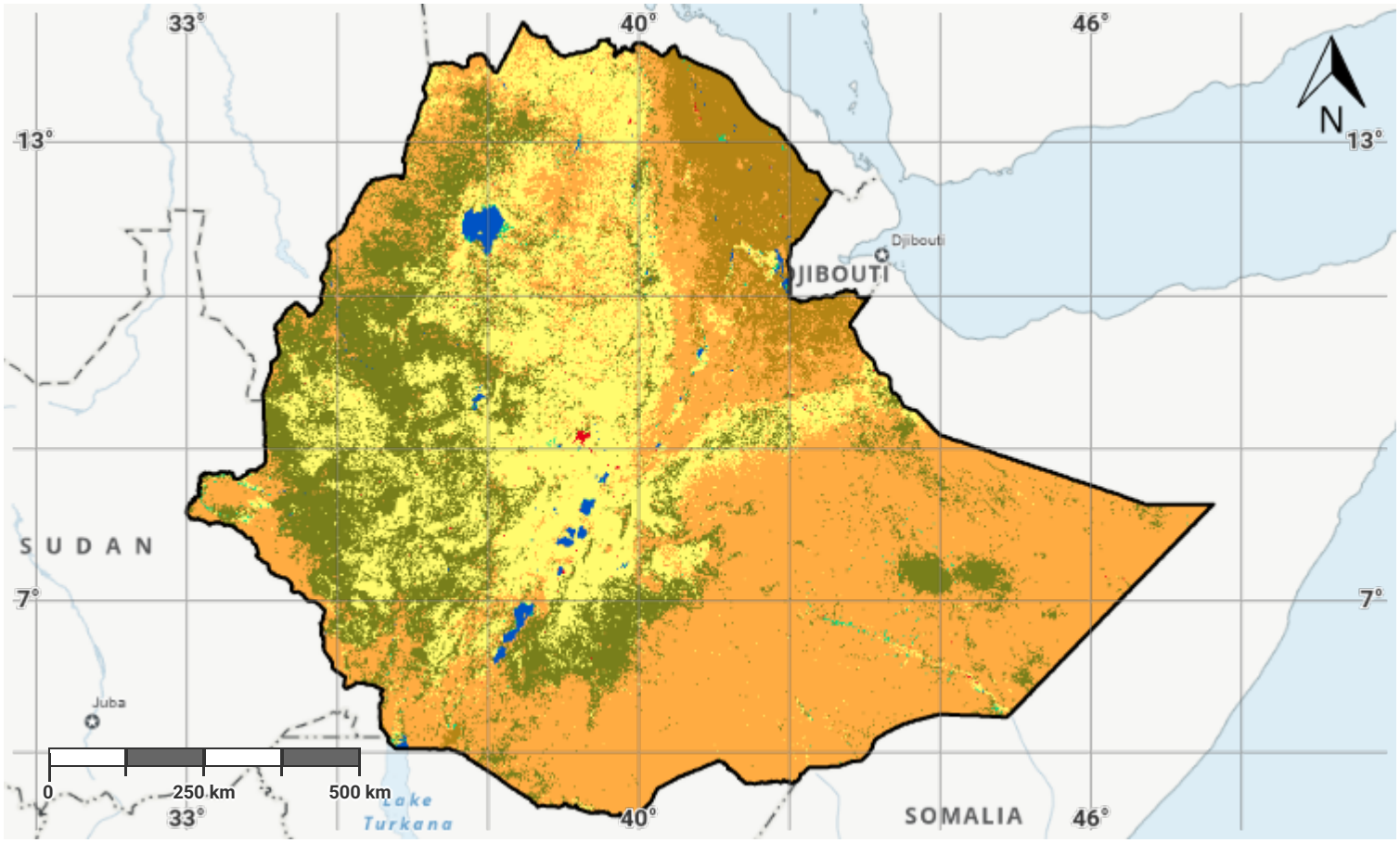
Ethiopia – SO1-1.M3

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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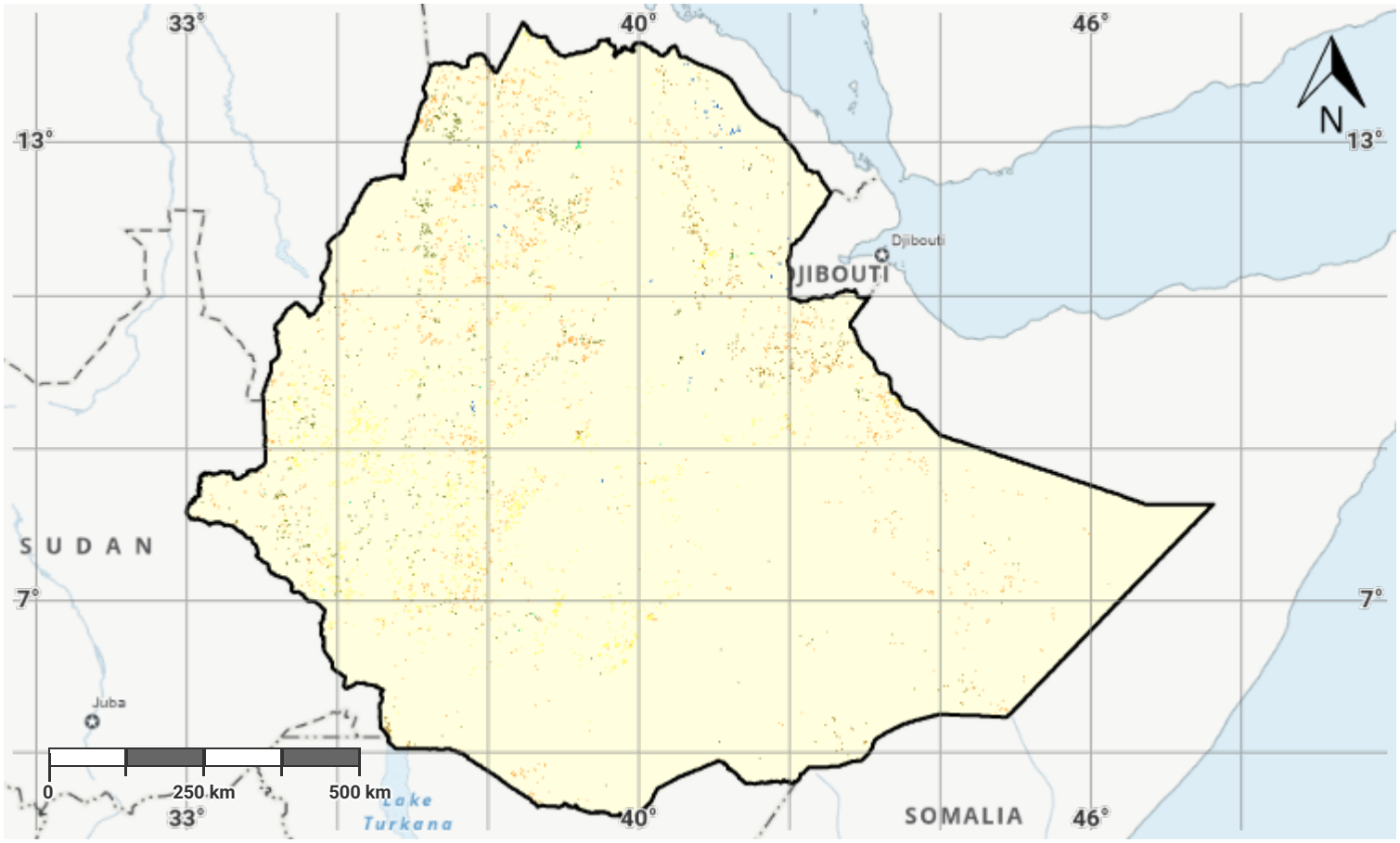
Ethiopia – SO1-1.M4

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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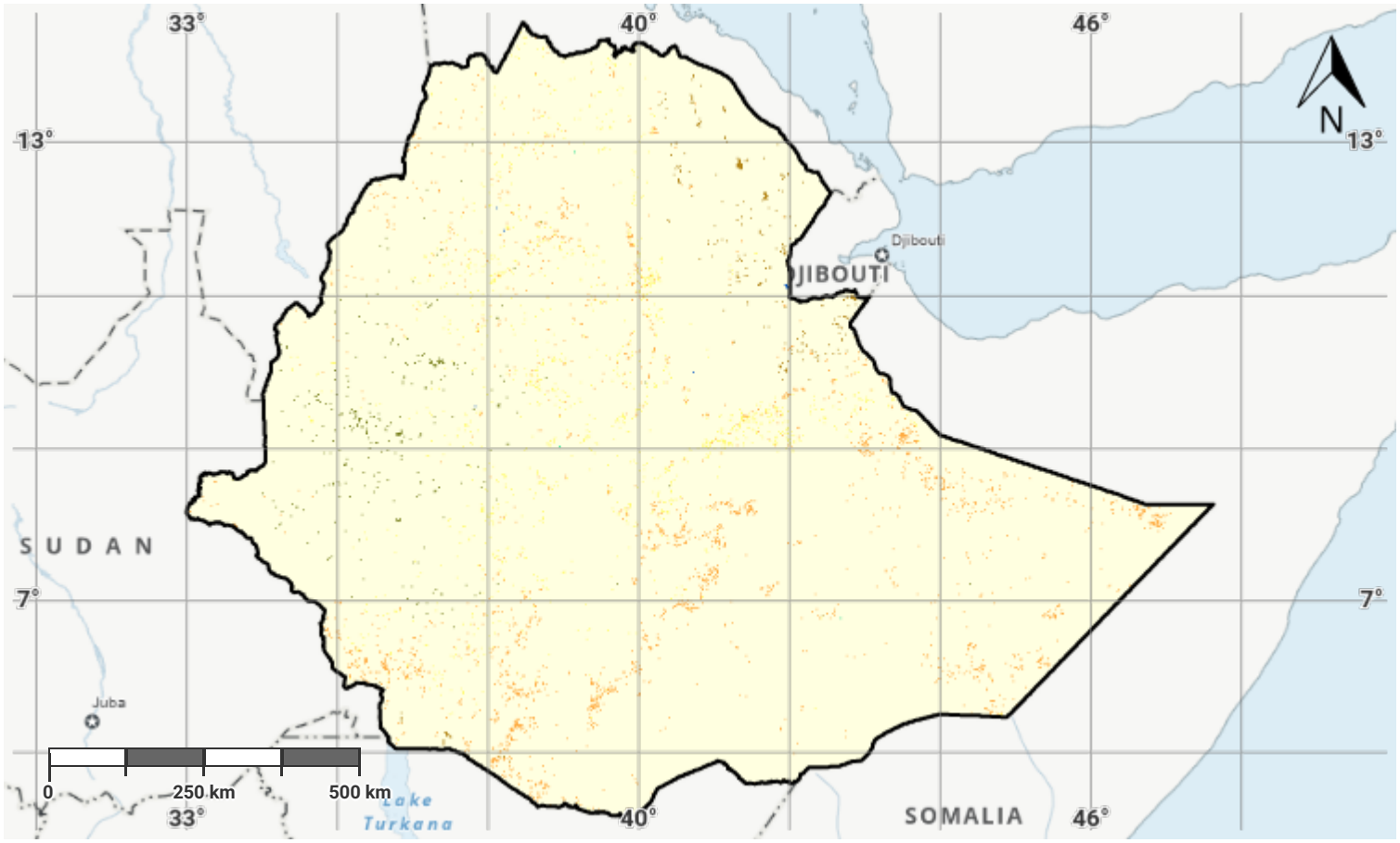
Ethiopia – SO1-1.M5

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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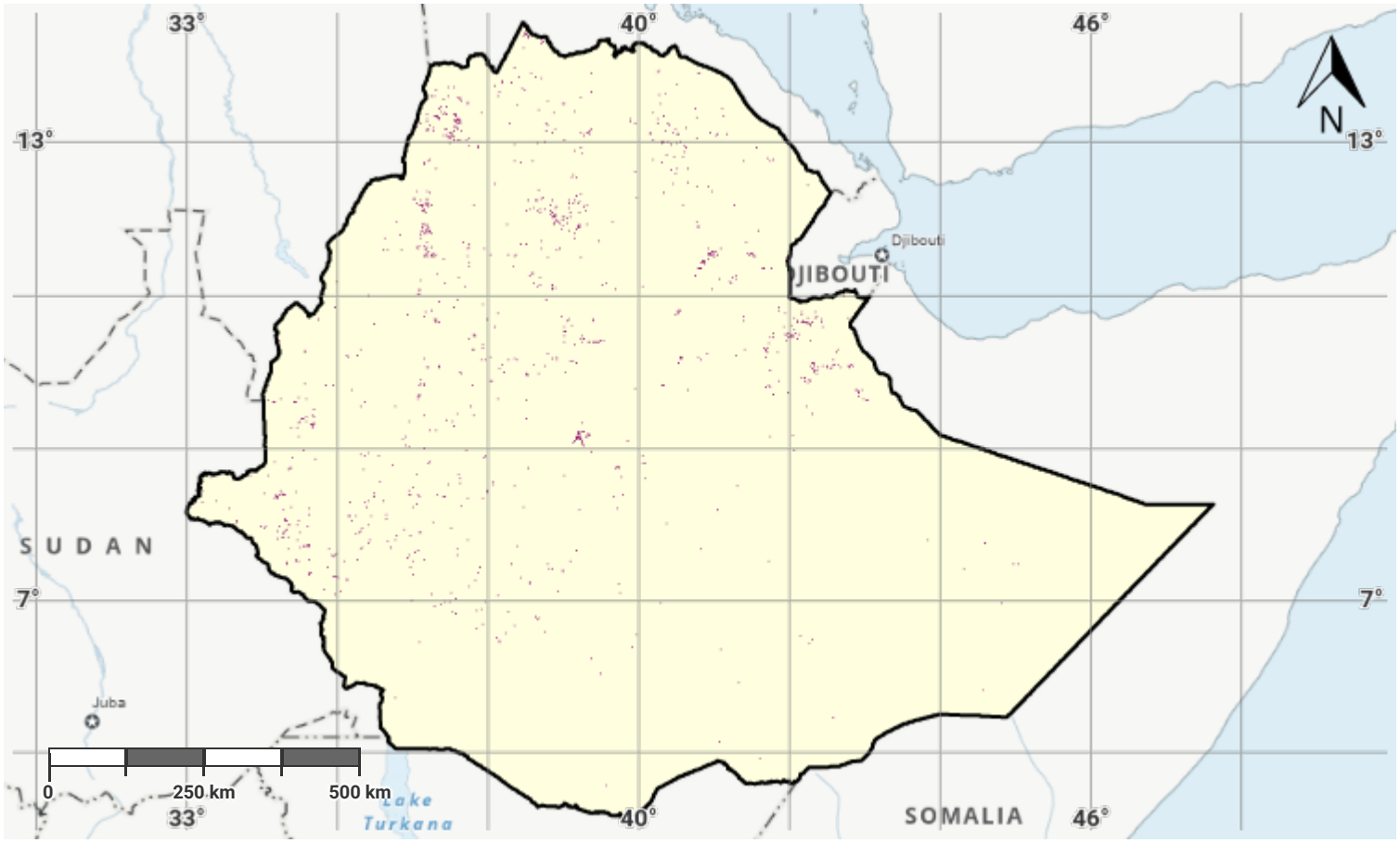
Ethiopia – SO1-1.M6

Land cover degradation in the baseline period



Legend

- No data
- Degradation
- Not degraded
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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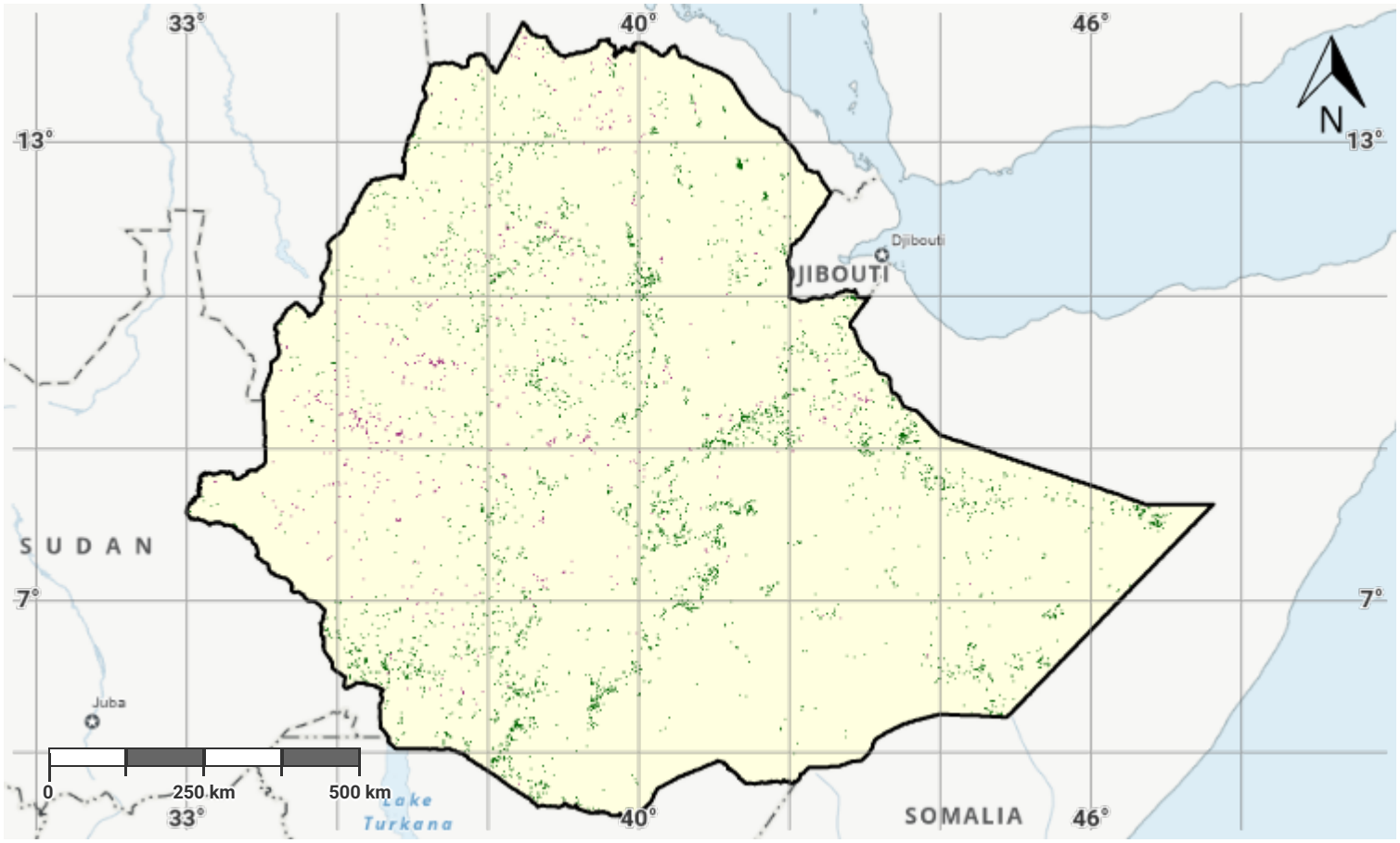
Ethiopia – SO1-1.M7

Land cover degradation in the reporting period



Legend

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

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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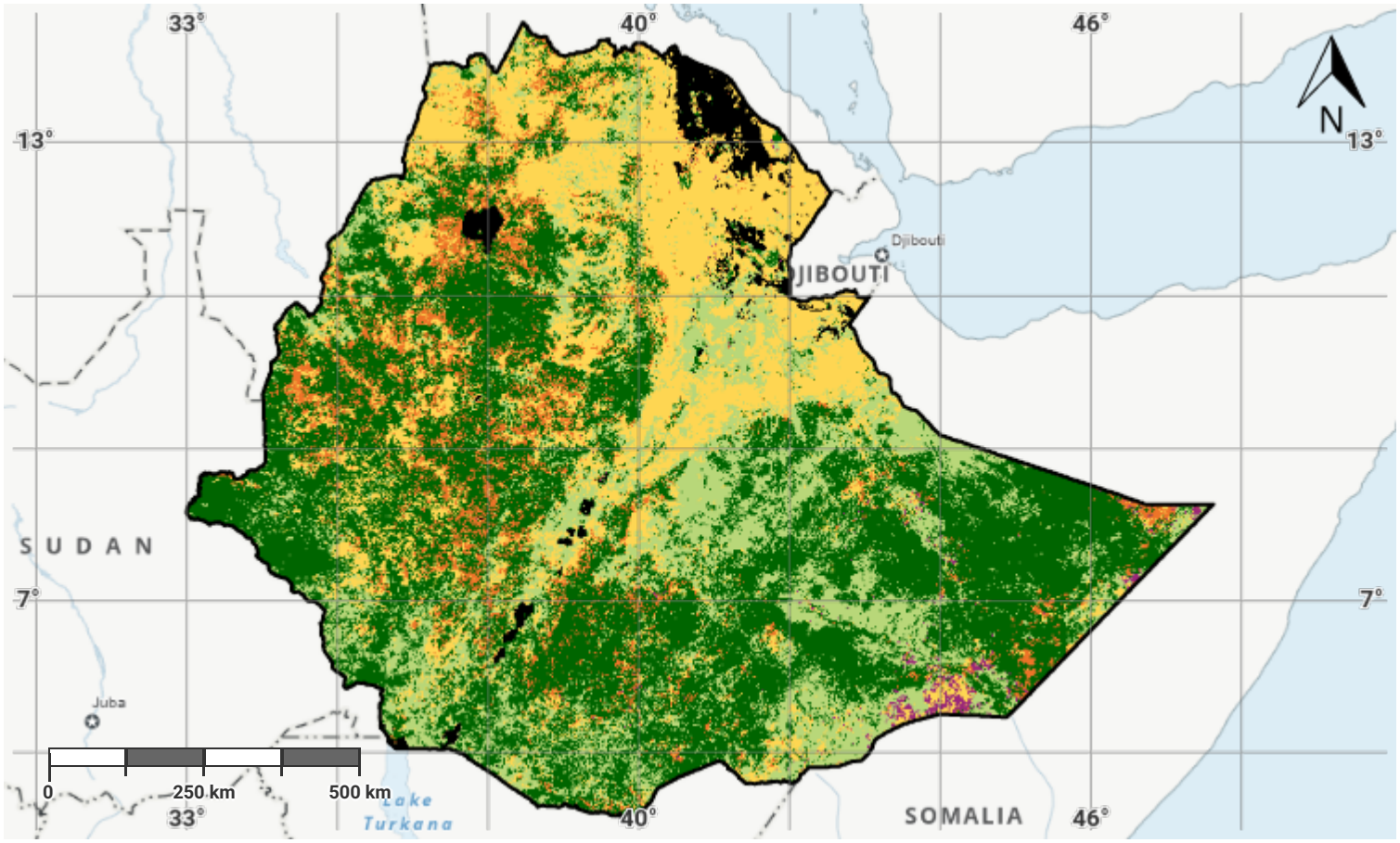
Ethiopia – SO1-2.M1

Land productivity dynamics in the baseline period



Legend

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

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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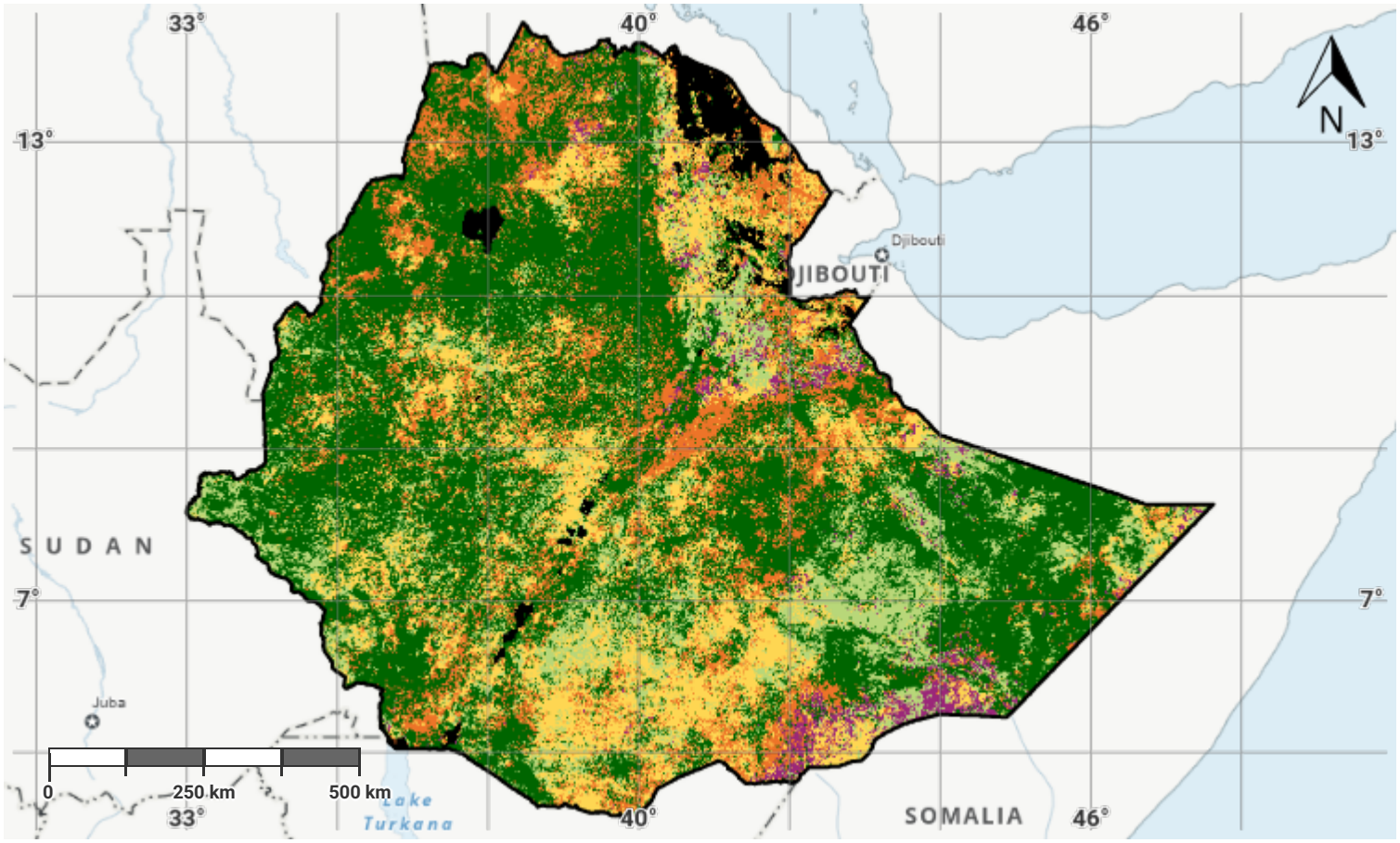
Ethiopia – SO1-2.M2

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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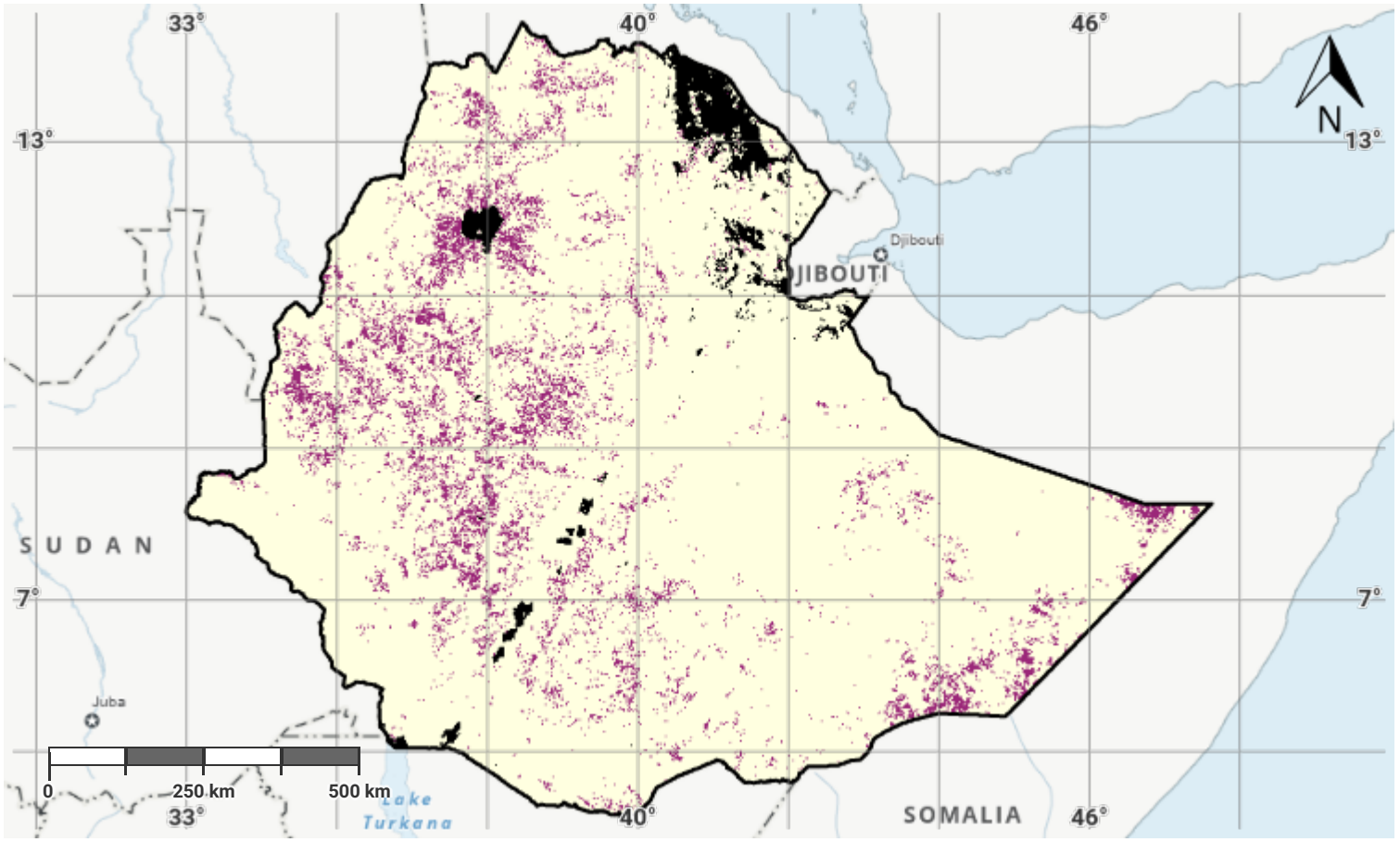
Ethiopia – SO1-2.M3

Land productivity degradation in the baseline period



Legend

- No data
- Degradation
- Not degraded
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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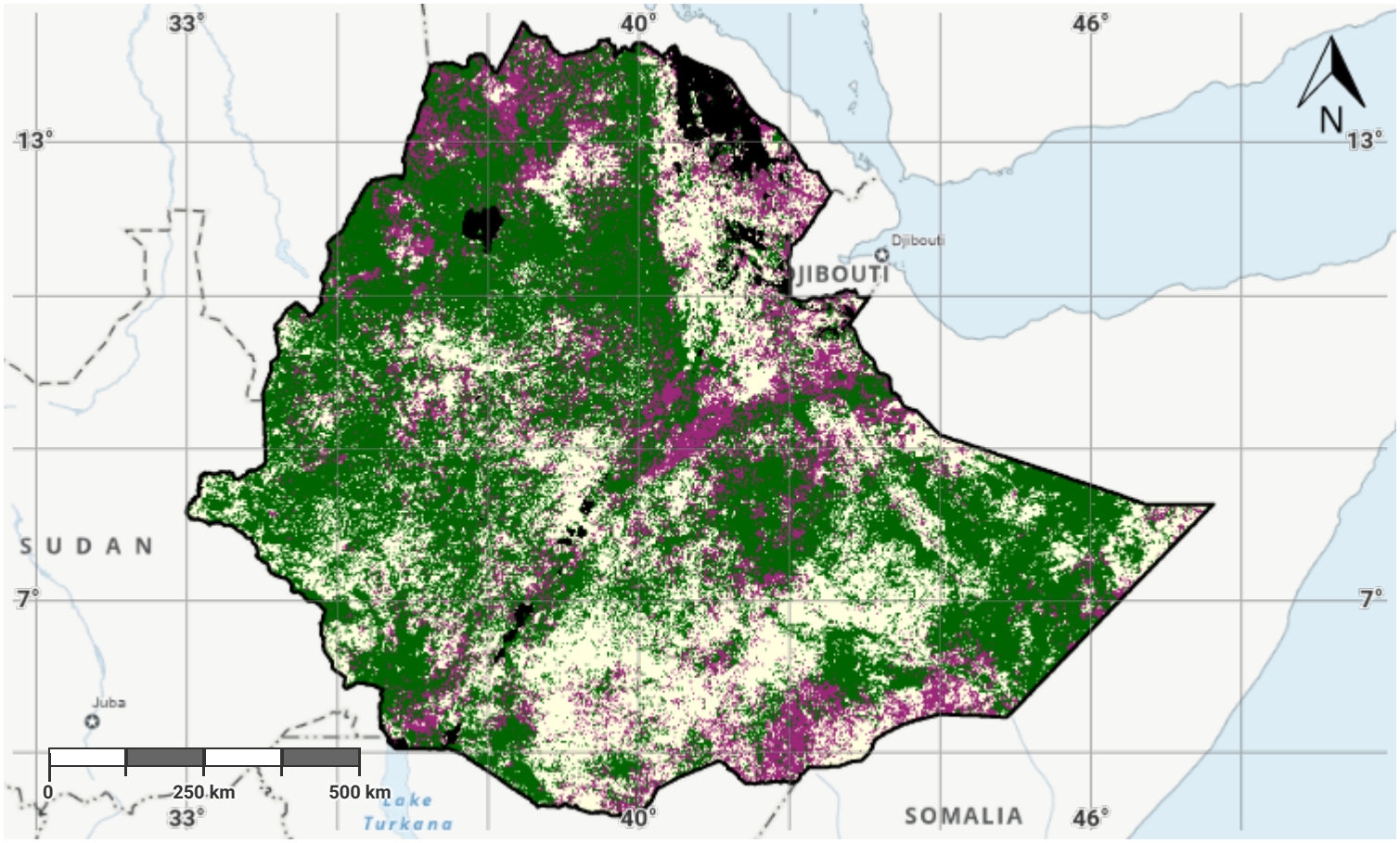
Ethiopia – SO1-2.M4

Land productivity degradation in the reporting period



Legend

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

Projection: EPSG:3857 (Web Mercator)

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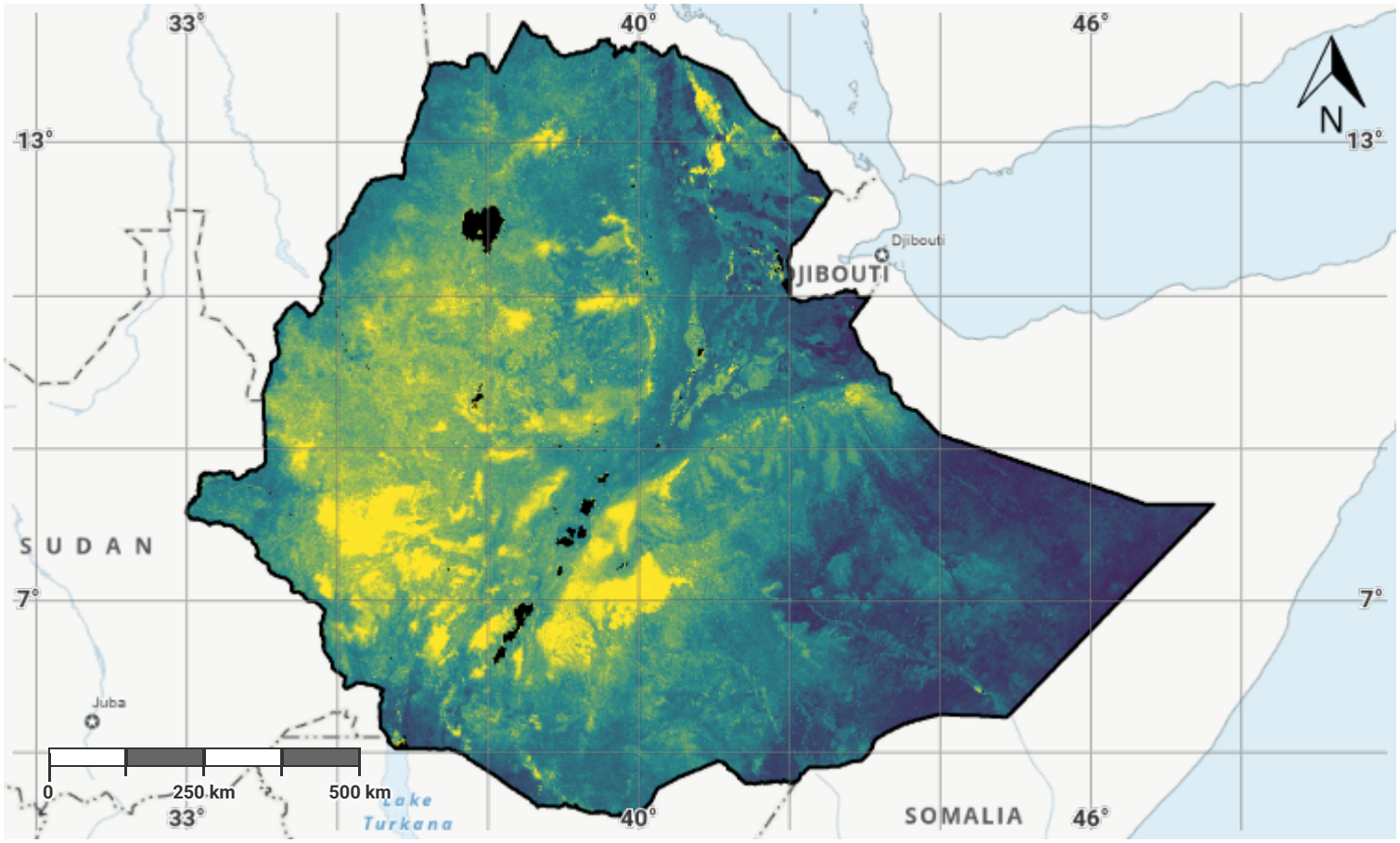
Ethiopia – SO1-3.M1

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



Legend

- No data
- 0 - 60.0 t/ha
- 60.0 - 120.0 t/ha
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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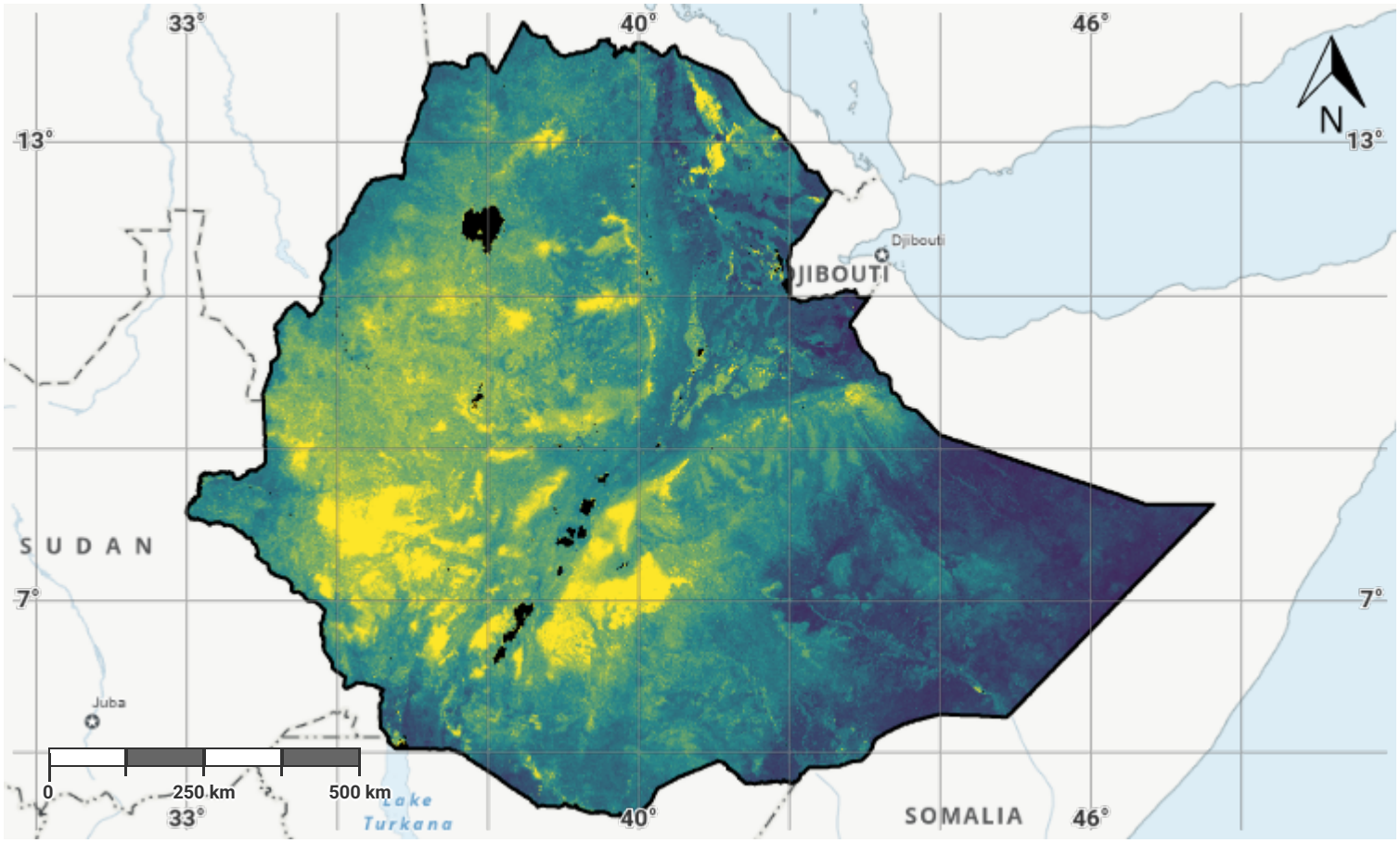
Source Data Credits

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

Ethiopia – SO1-3.M2

Soil organic carbon stock in the baseline year



Legend

- No data
- 0 - 60.0 t/ha
- 60.0 - 120.0 t/ha
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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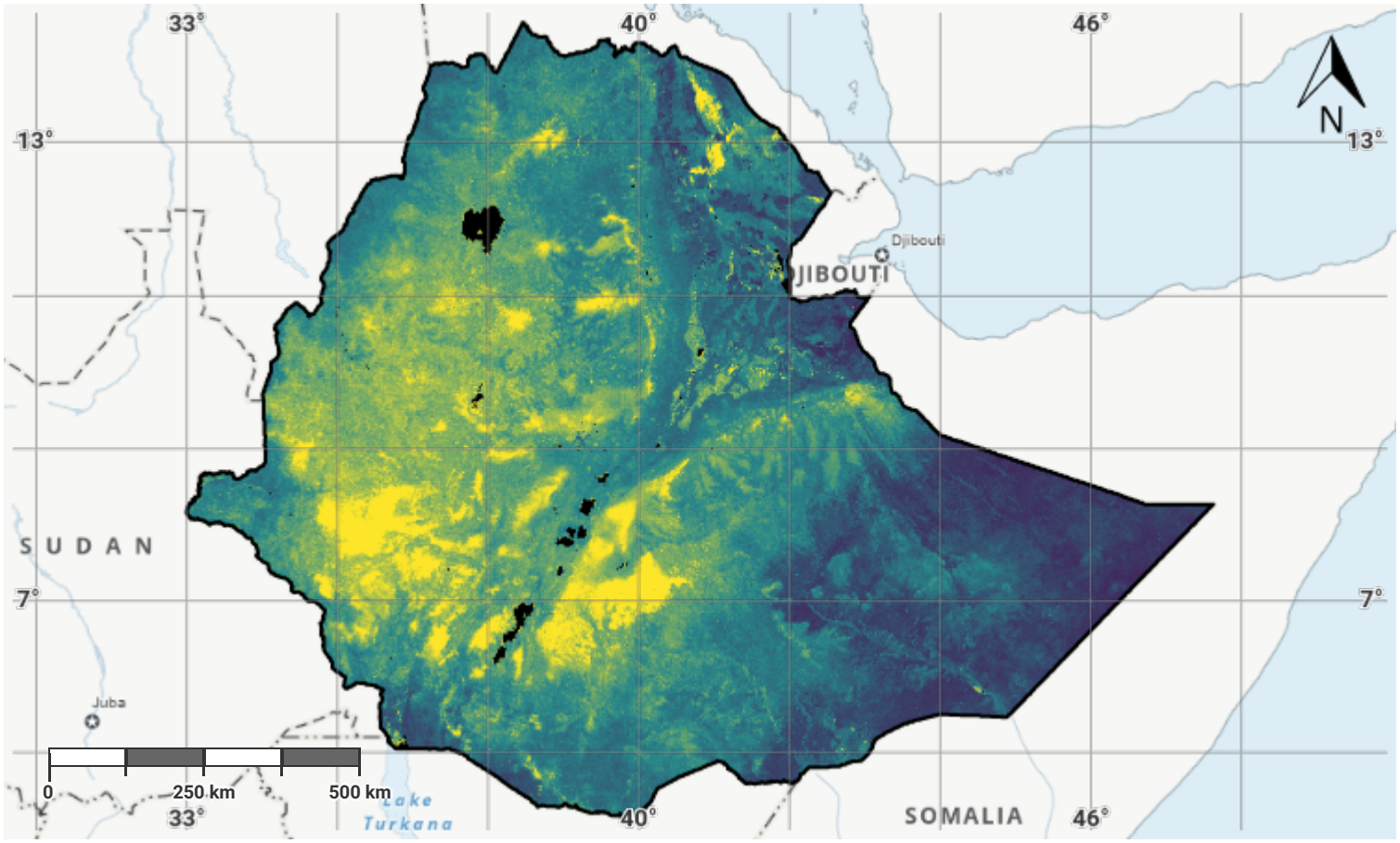
Ethiopia – SO1-3.M3

Soil organic carbon stock in the latest reporting year



Legend

- No data
- 0 - 60.0 t/ha
- 60.0 - 120.0 t/ha
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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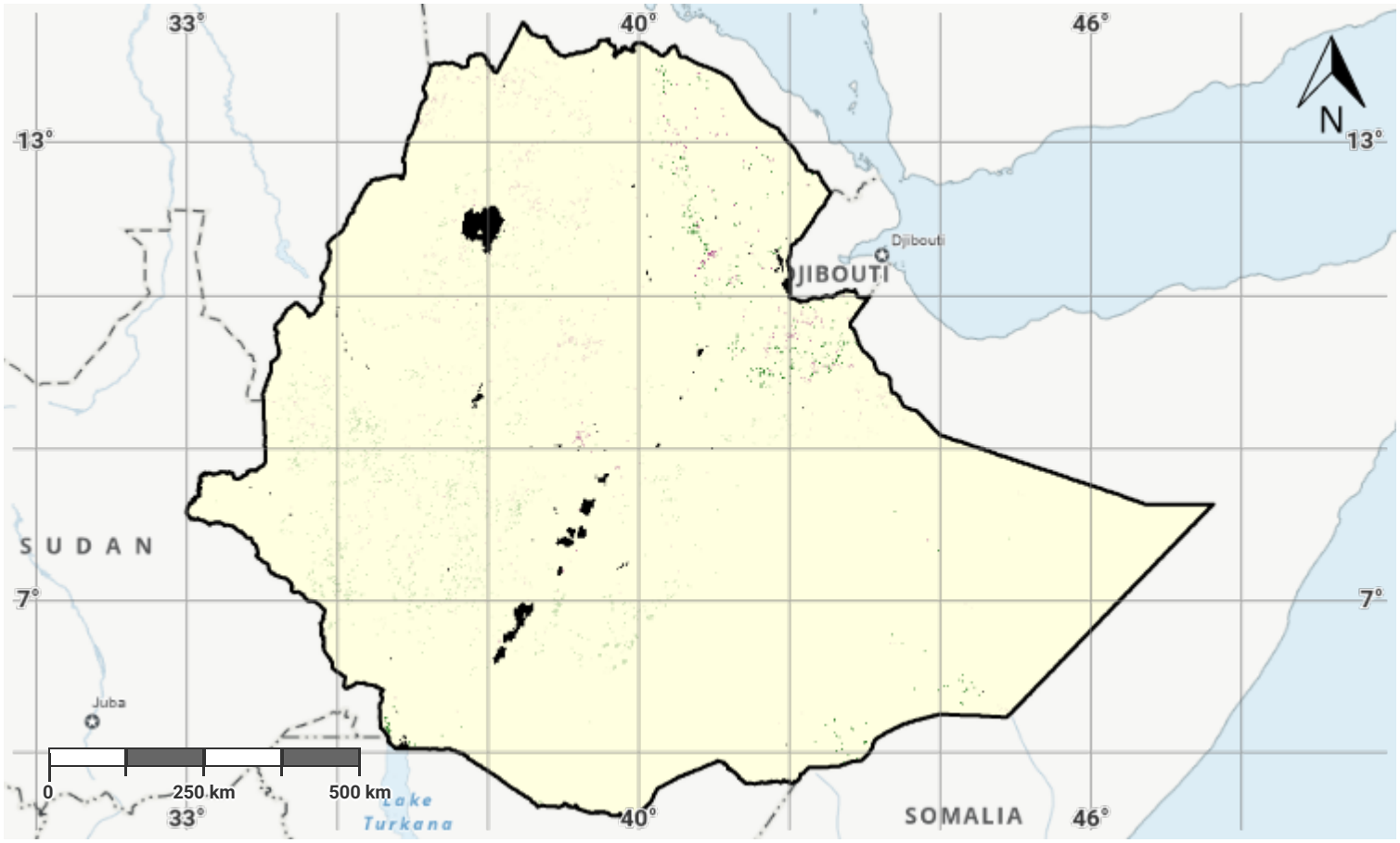
Ethiopia – SO1-3.M4

Change in soil organic carbon stock in the baseline period



Legend

- No data
- -74.0 - 0 t/ha
- 0 - 74.0 t/ha
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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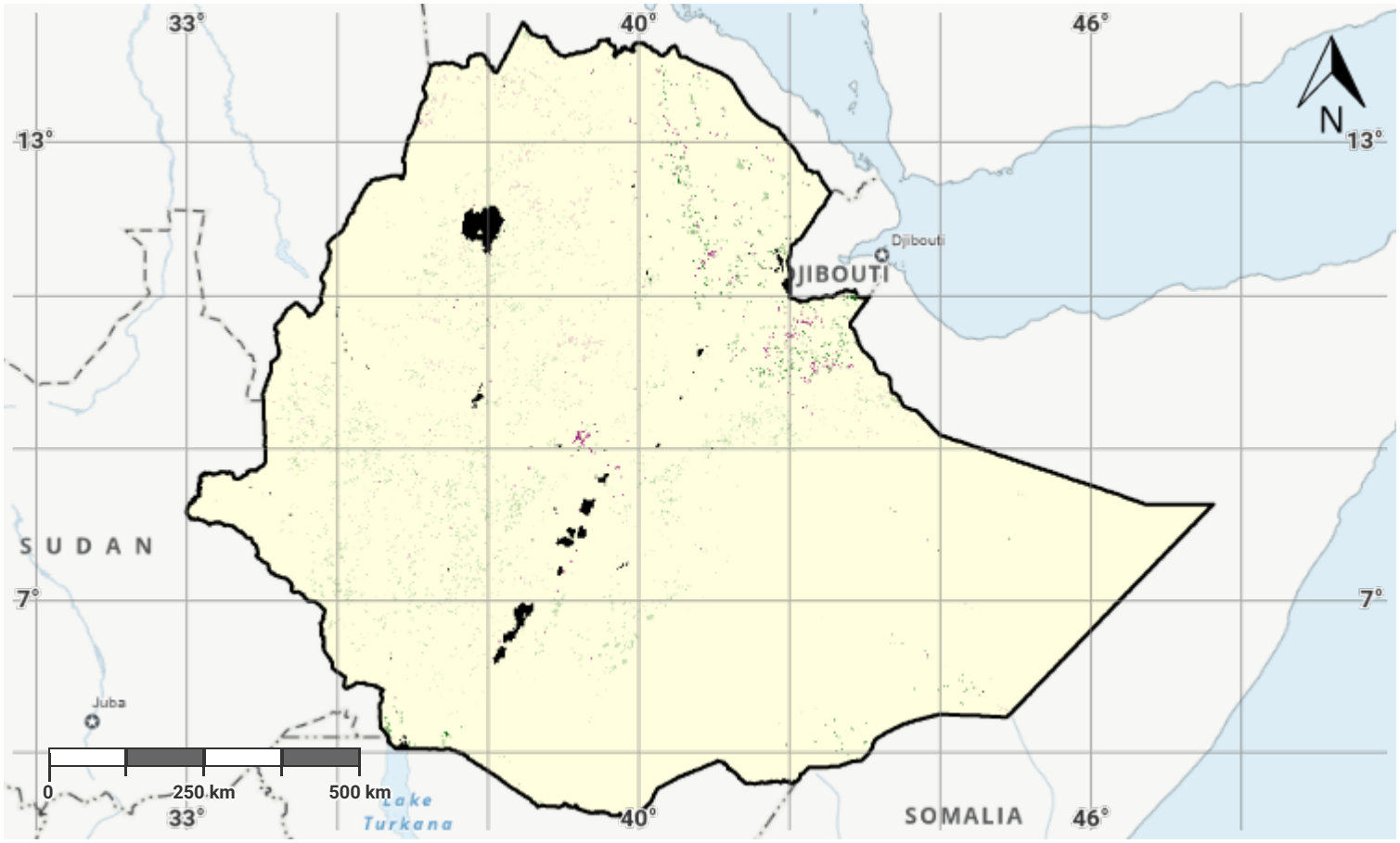
Ethiopia – SO1-3.M5

Change in soil organic carbon stock in the reporting 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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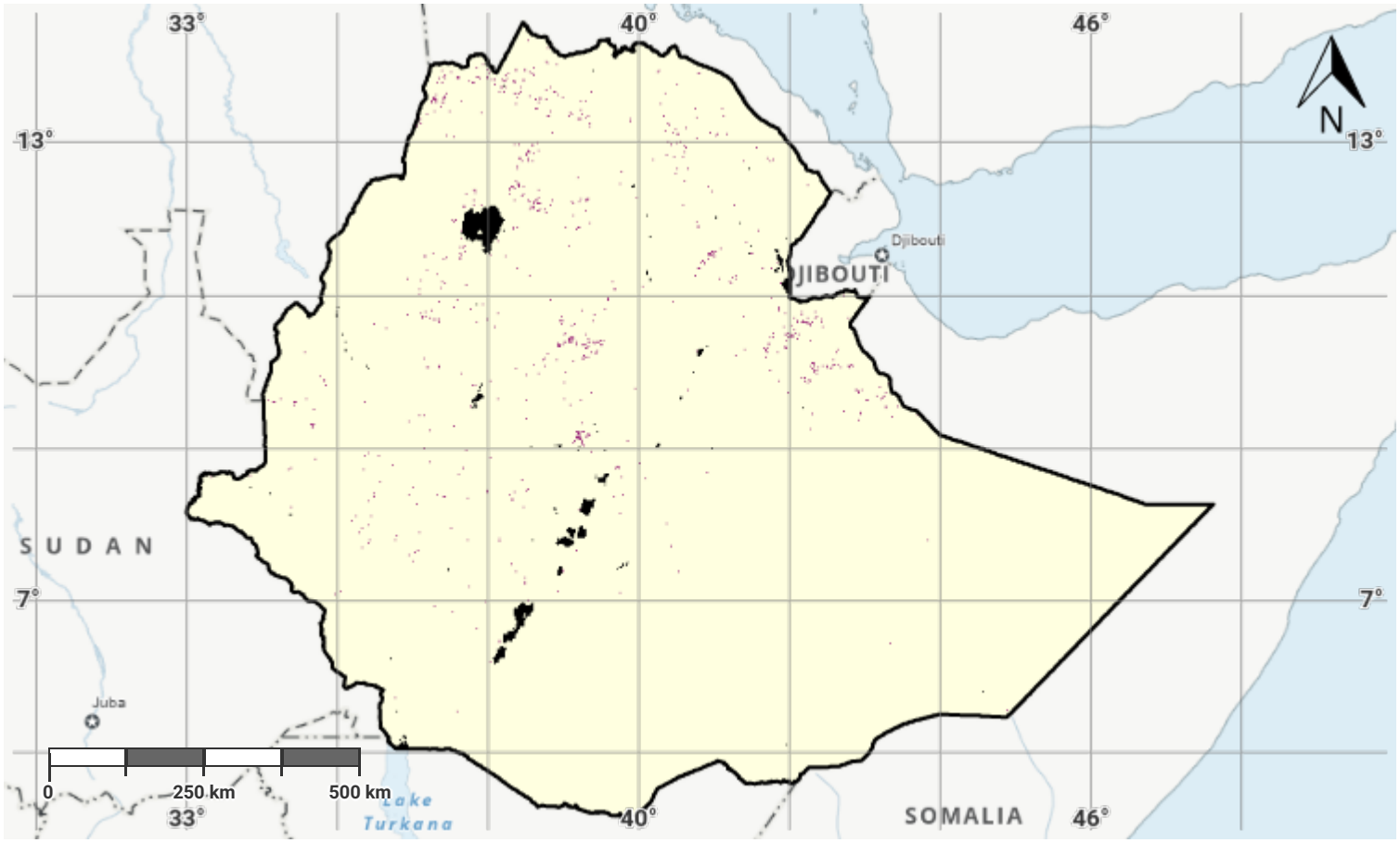
Source Data Credits

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

Ethiopia – SO1-3.M6

Soil organic carbon degradation in the baseline period



Legend

- No data
- Degradation
- Not degraded
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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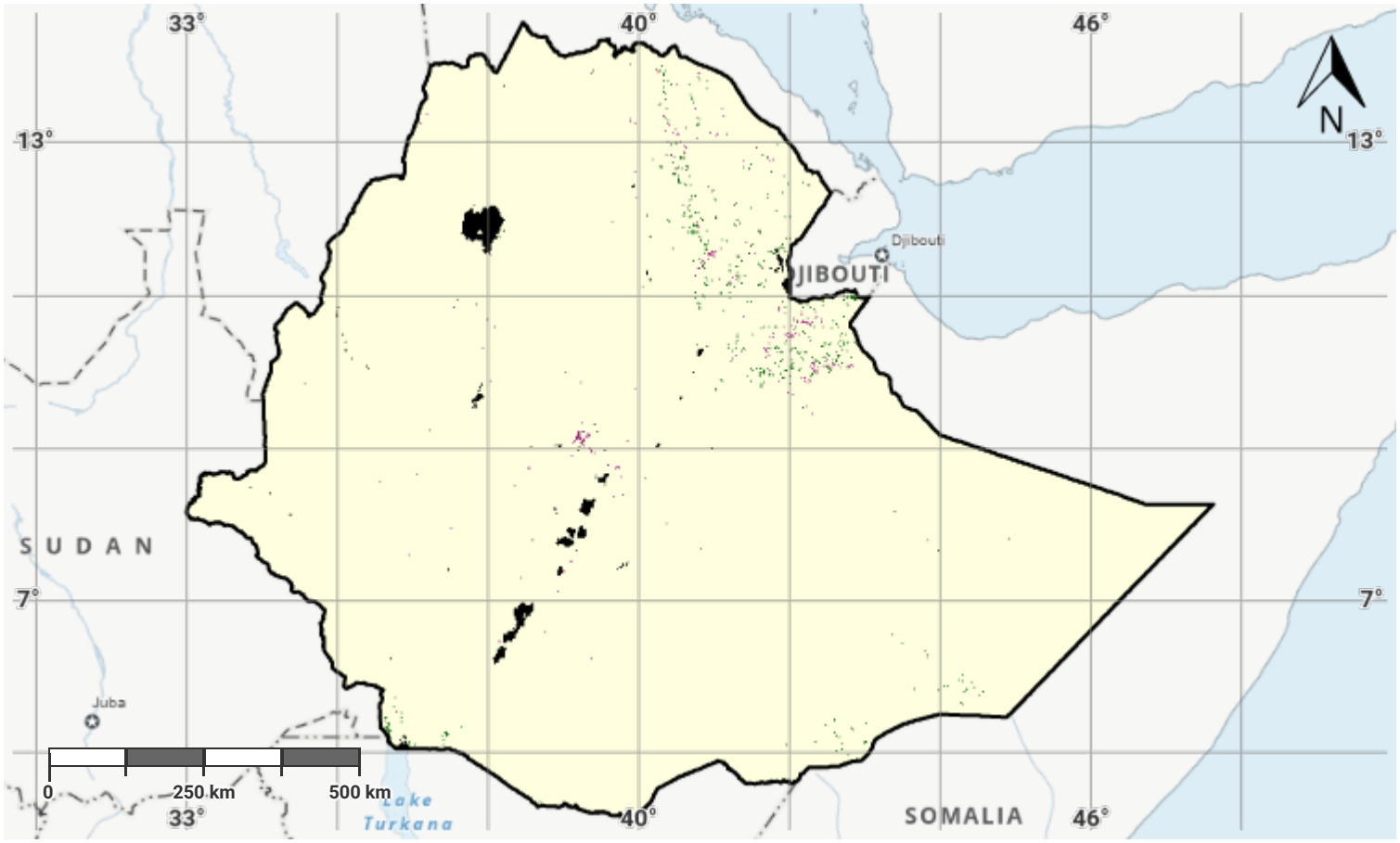
Ethiopia – SO1-3.M7

Soil organic carbon degradation in the reporting period



Legend

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

Projection: EPSG:3857 (Web Mercator)

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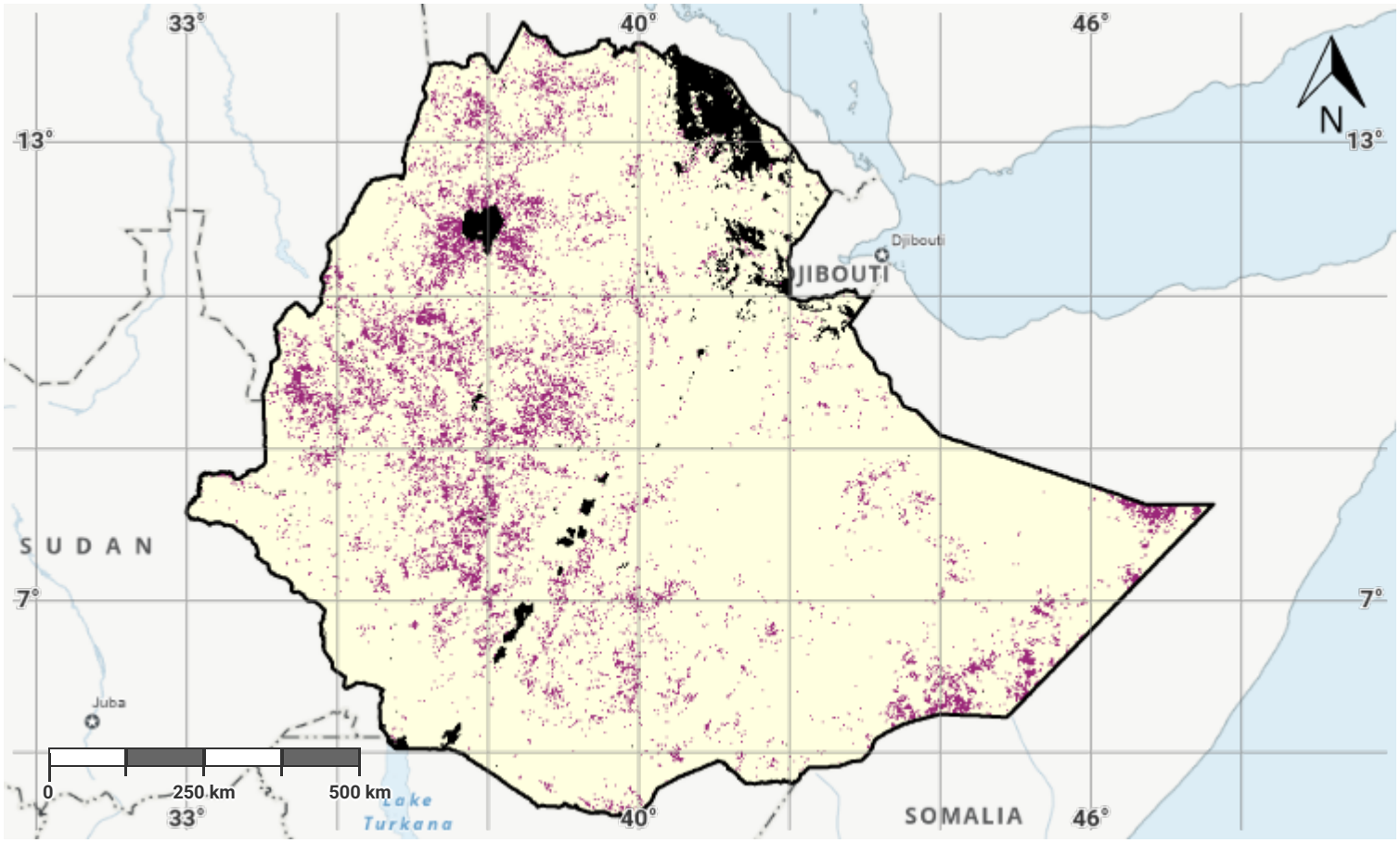
Ethiopia – SO1-4.M1

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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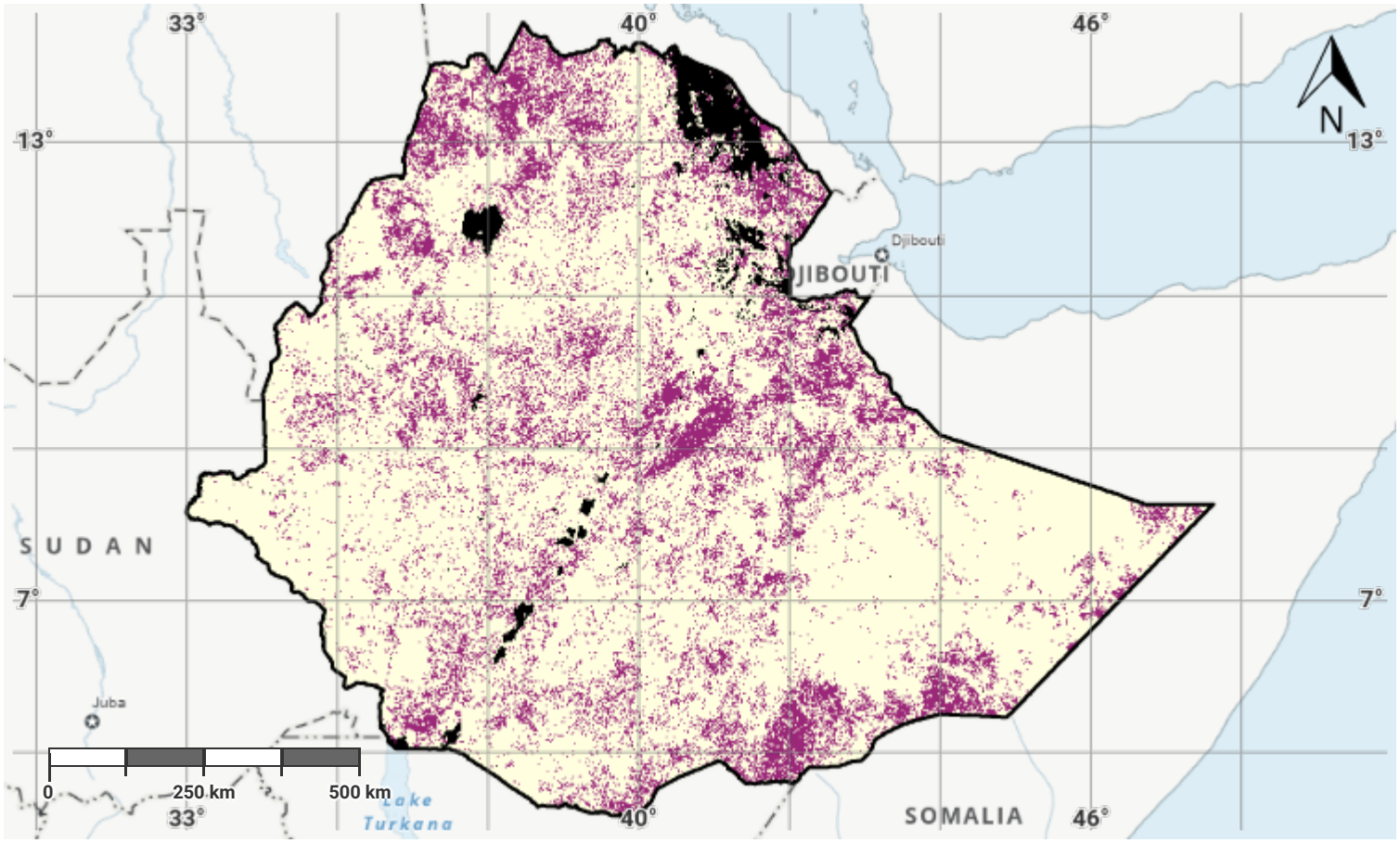
Source Data Credits

- 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

Ethiopia – 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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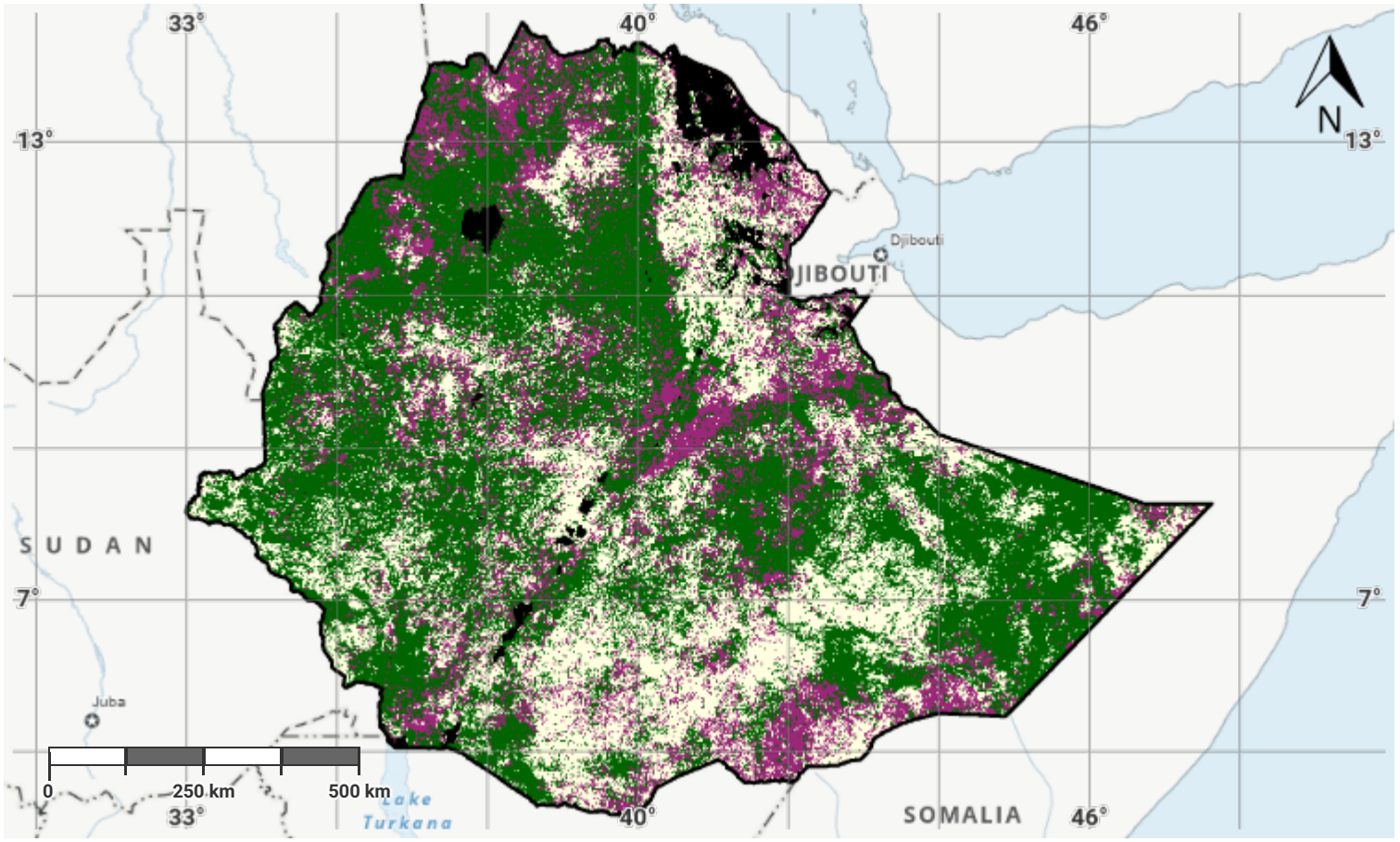
Ethiopia – SO1-4.M3

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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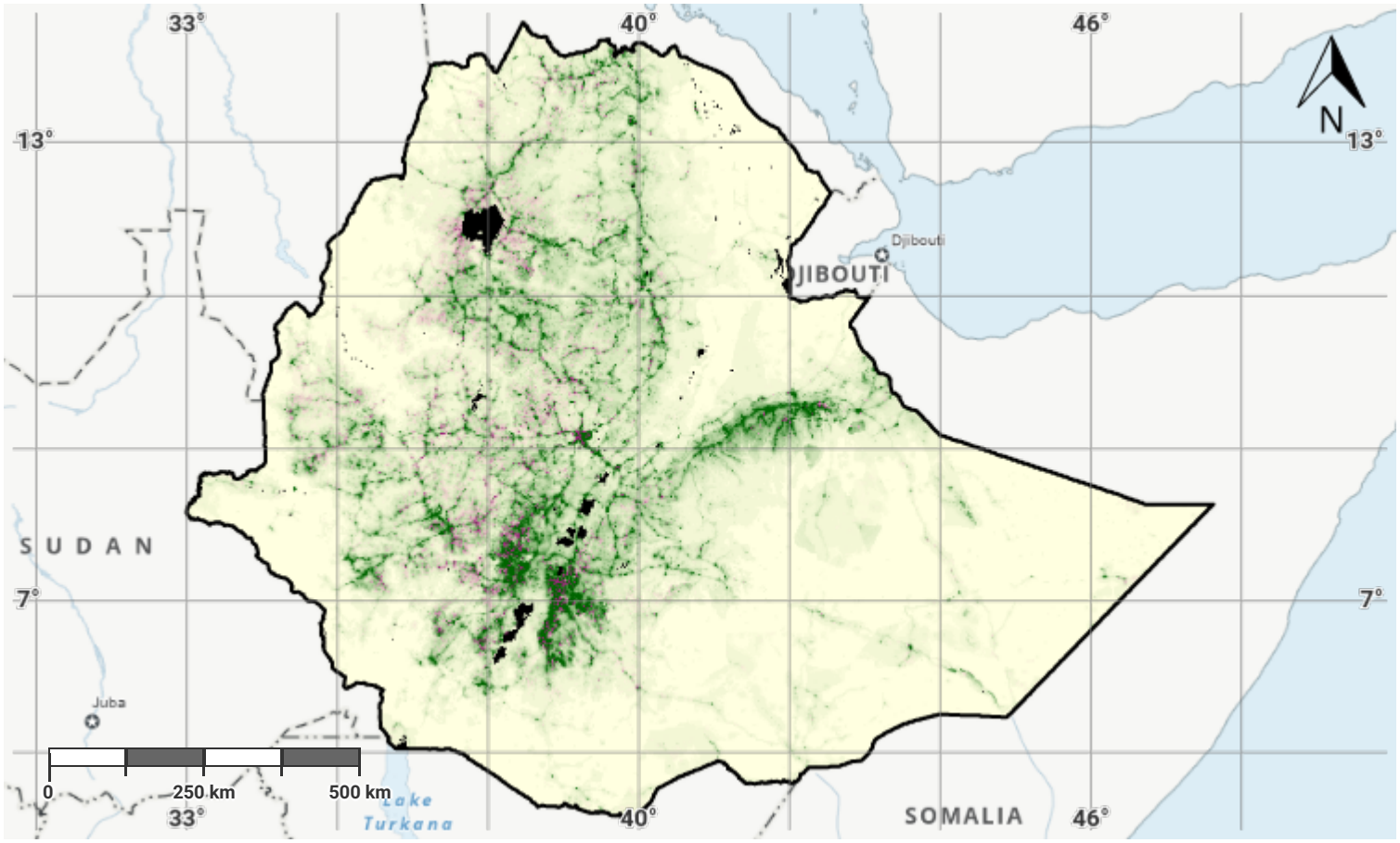
Ethiopia – SO2-3.M1

Total Population exposed to land degradation (baseline)



Legend

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

Projection: EPSG:3857 (Web Mercator)

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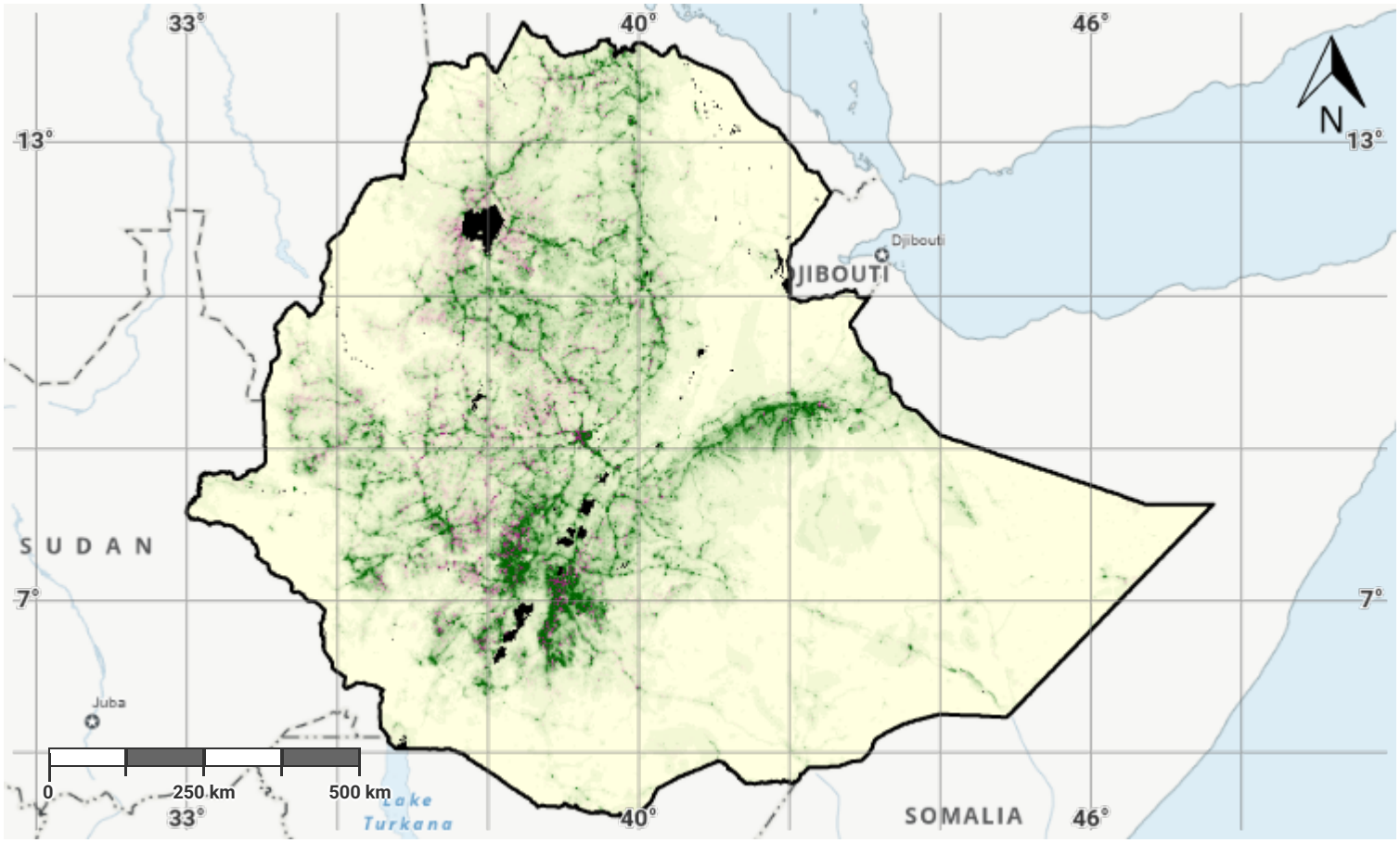
Source Data Credits

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

Ethiopia – SO2-3.M2

Female Population exposed to land degradation (baseline)



Legend

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

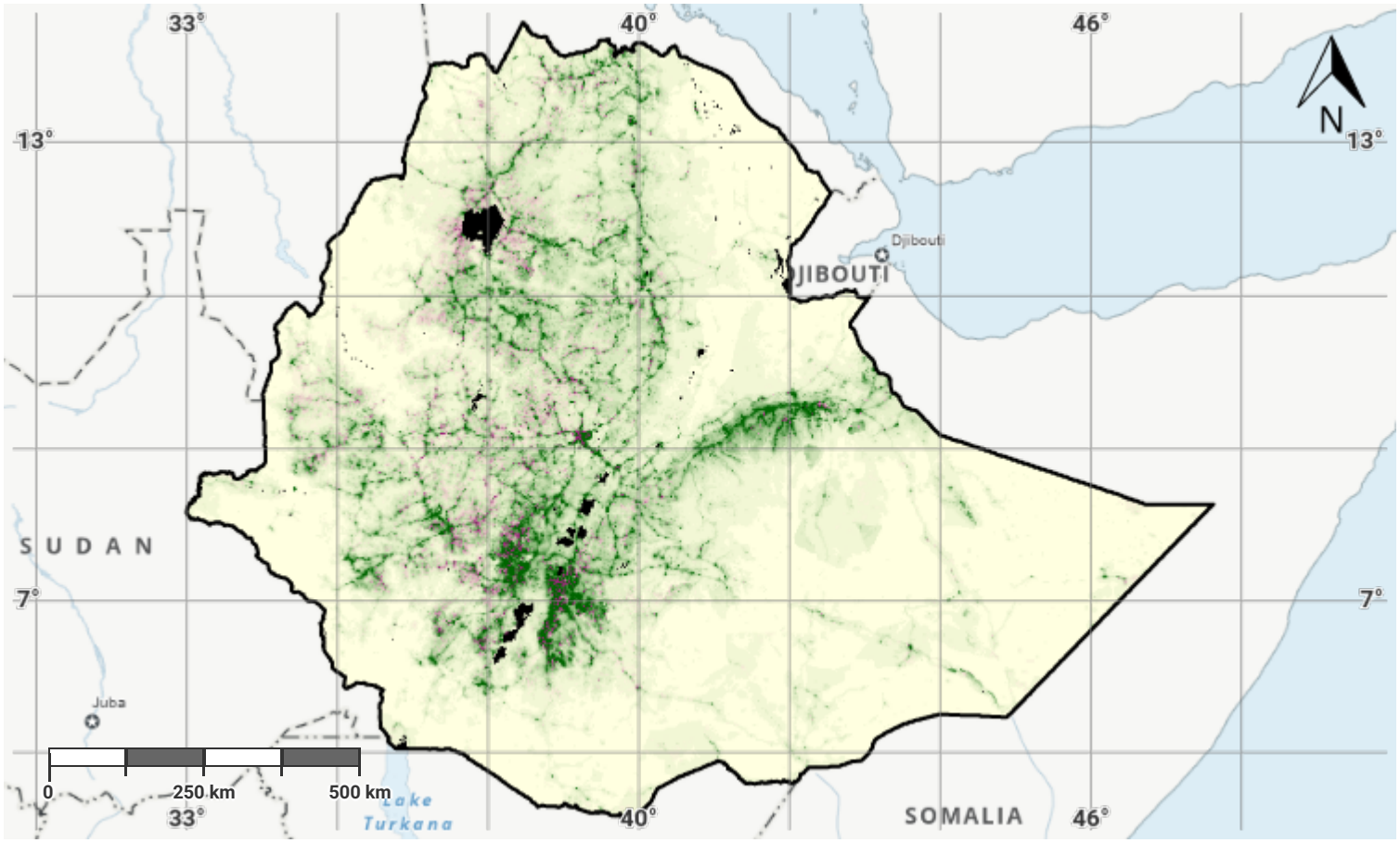
Projection: EPSG:3857 (Web Mercator)

Source Data Credits

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

Ethiopia – SO2-3.M3

Male Population exposed to land degradation (baseline)



Legend

- No data
- Population exposed to degradation (number of people, male): 0 - 210
- No land degradation
- Population not exposed to degradation (number of people, male): 0 - 210
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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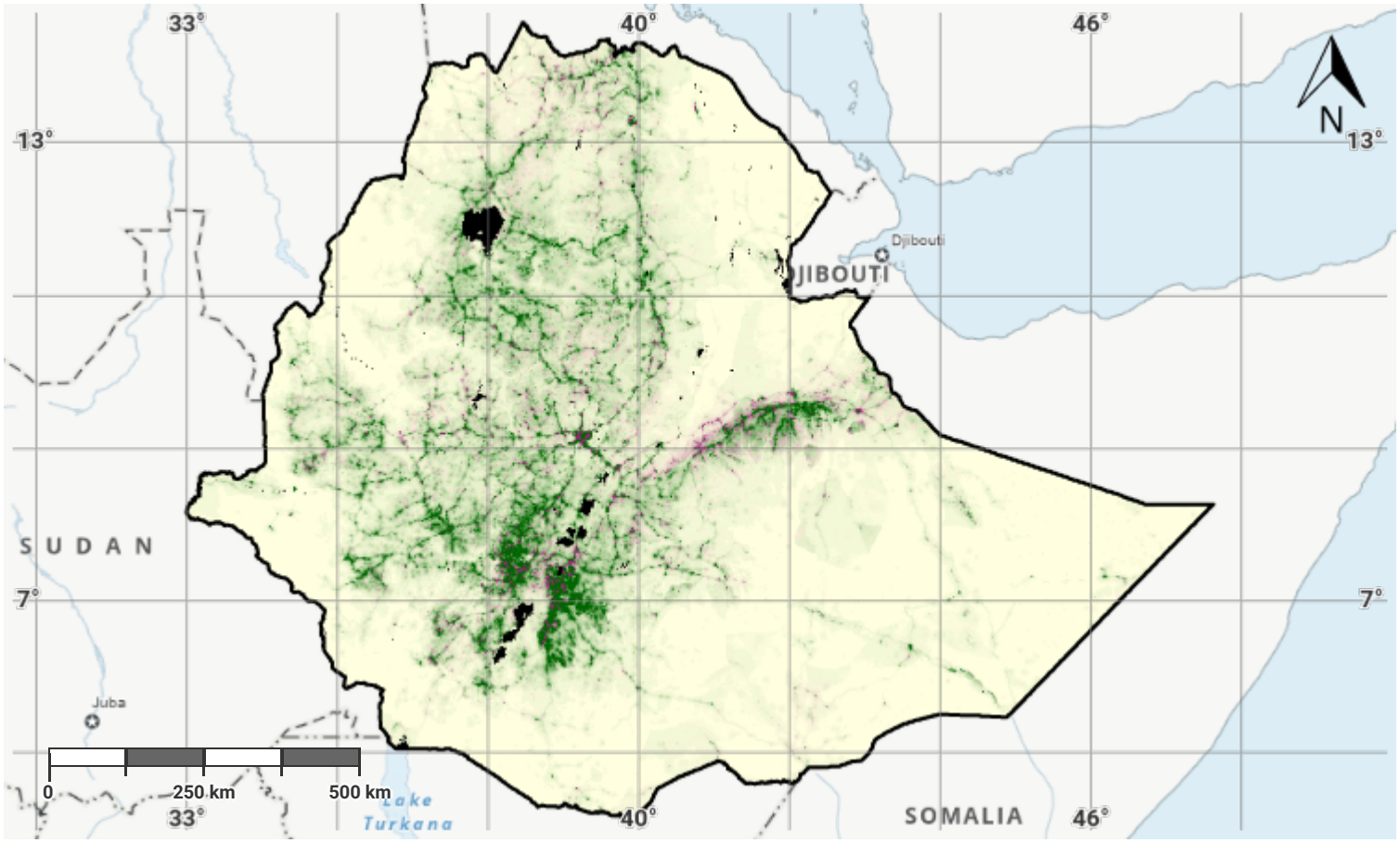
Source Data Credits

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

Ethiopia – SO2-3.M4

Total Population exposed to land degradation (reporting)



Legend

- No data
- Population exposed to degradation (number of people, total): 0 - 460
- No land degradation
- Population not exposed to degradation (number of people, total): 0 - 460
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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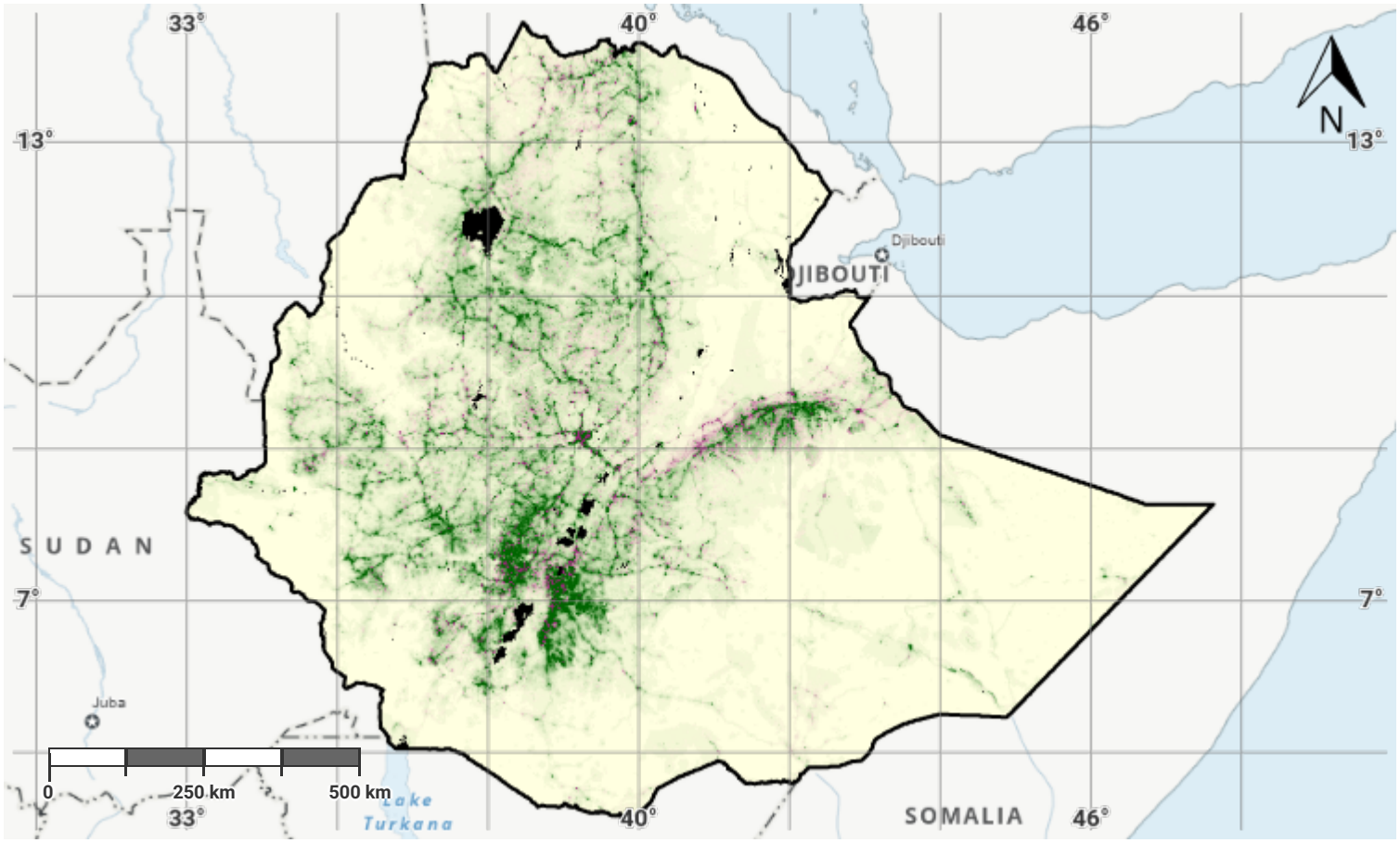
Source Data Credits

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

Ethiopia – 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

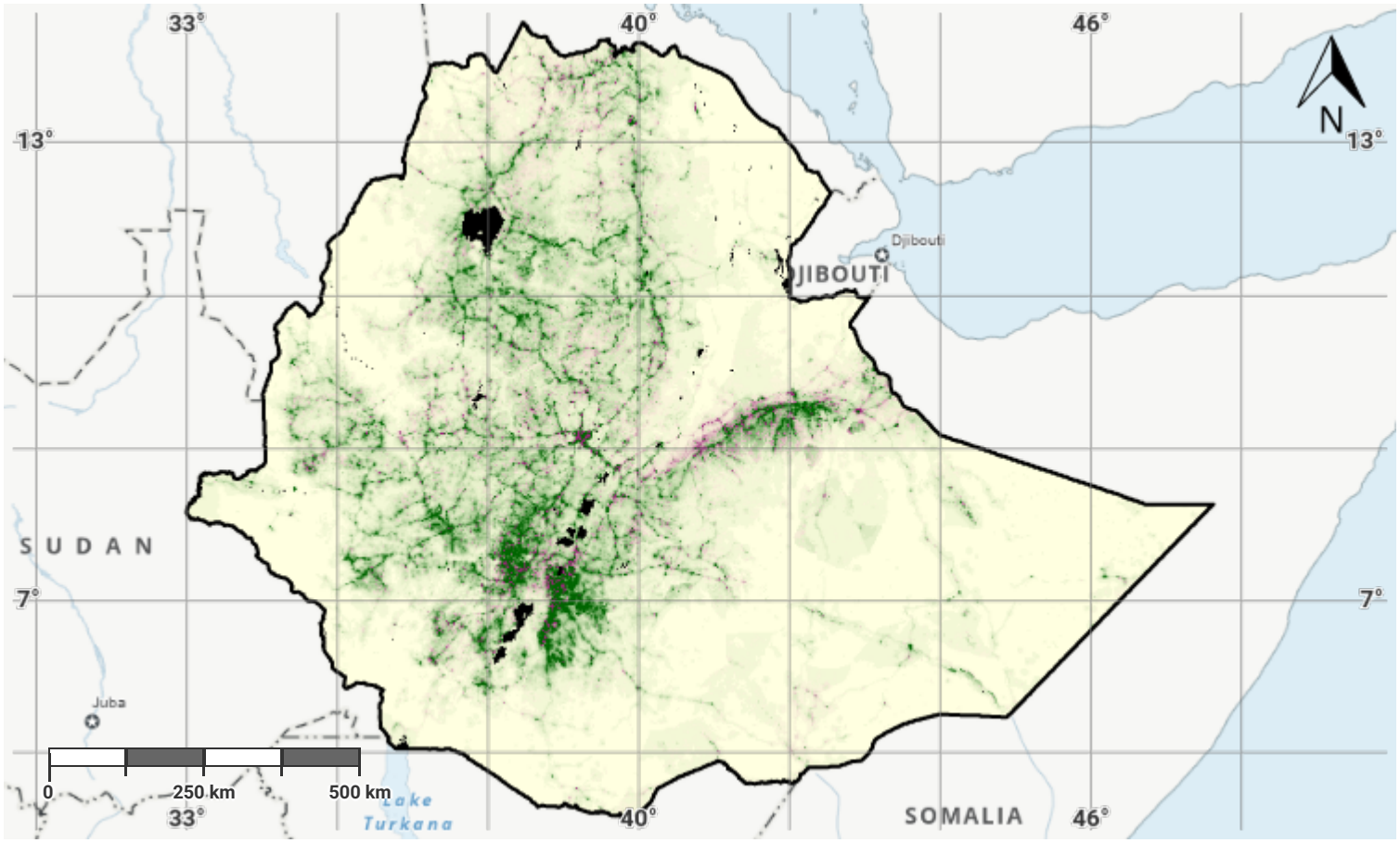
Projection: EPSG:3857 (Web Mercator)

Source Data Credits

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

Ethiopia – 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)

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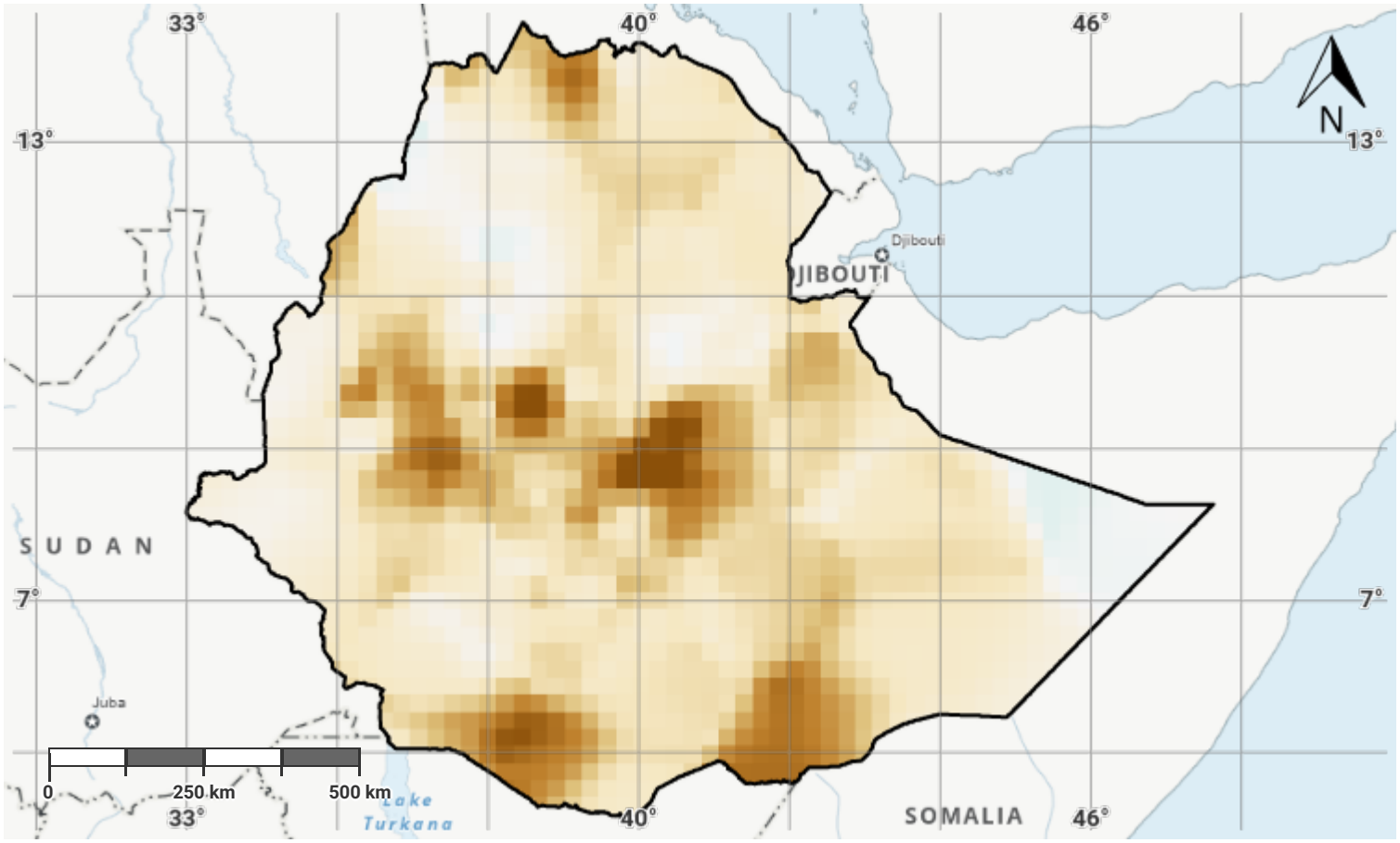
Ethiopia – SO3-1.M1

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

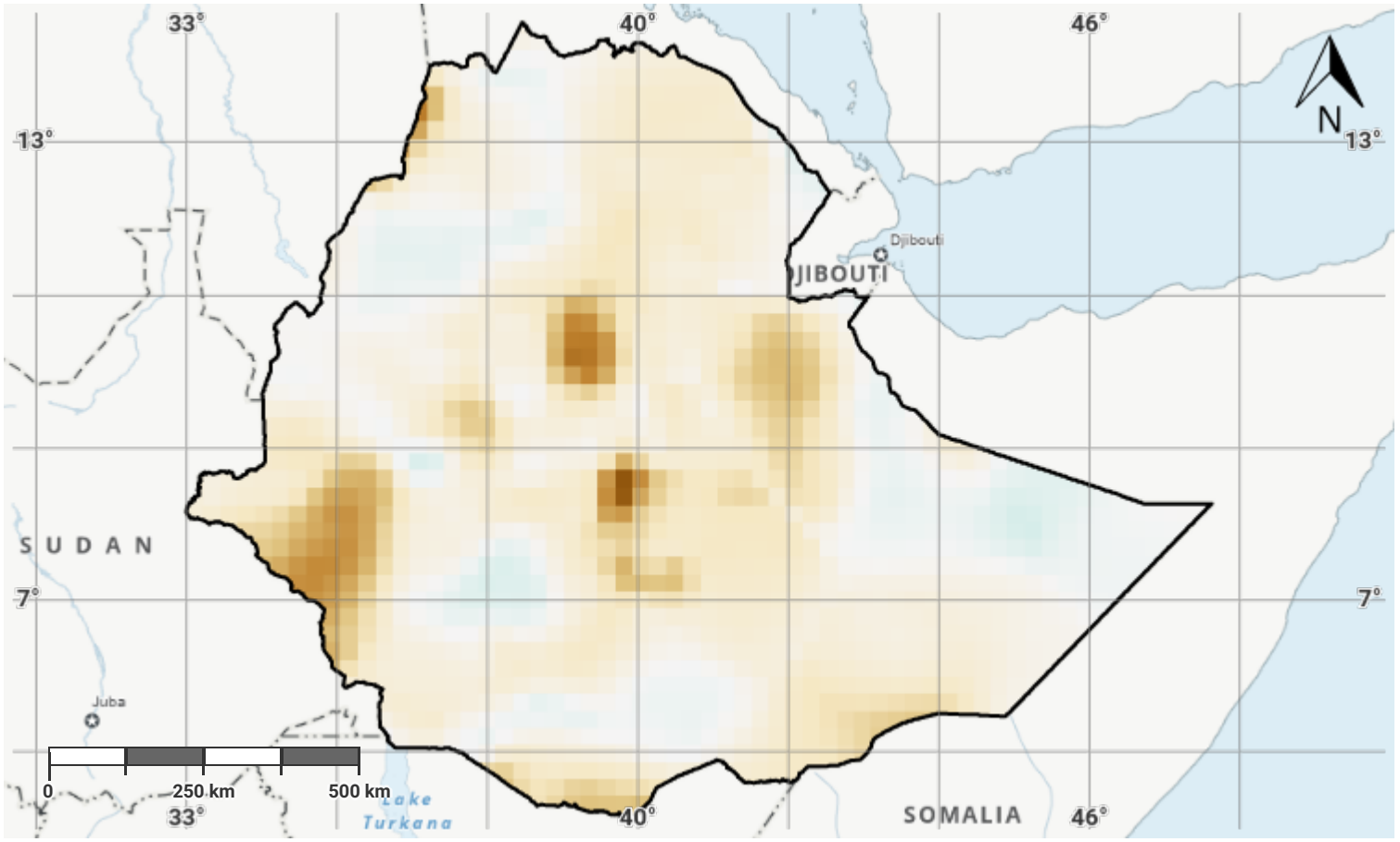
Projection: EPSG:3857 (Web Mercator)

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

Ethiopia – 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

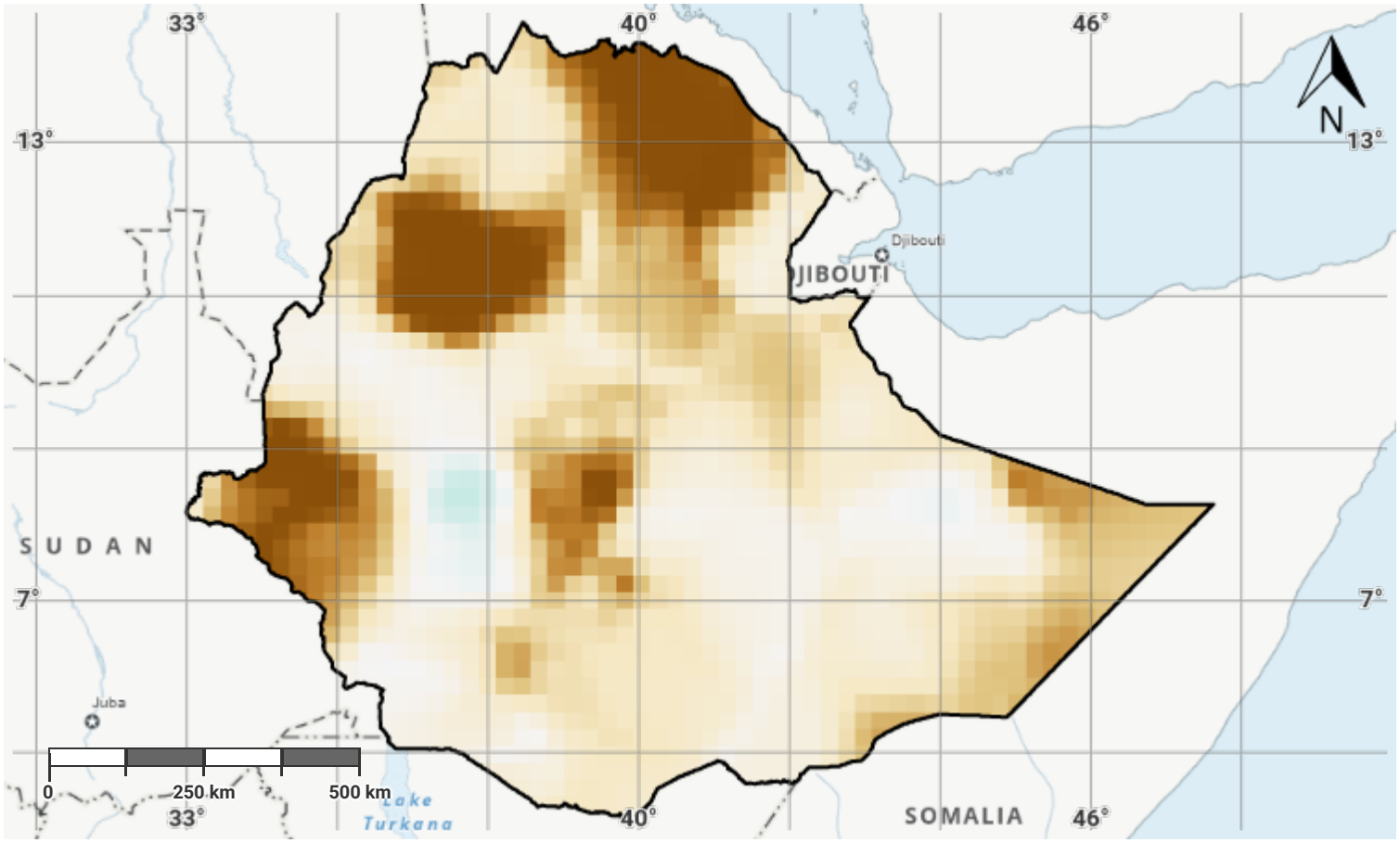
Projection: EPSG:3857 (Web Mercator)

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

Ethiopia – 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)

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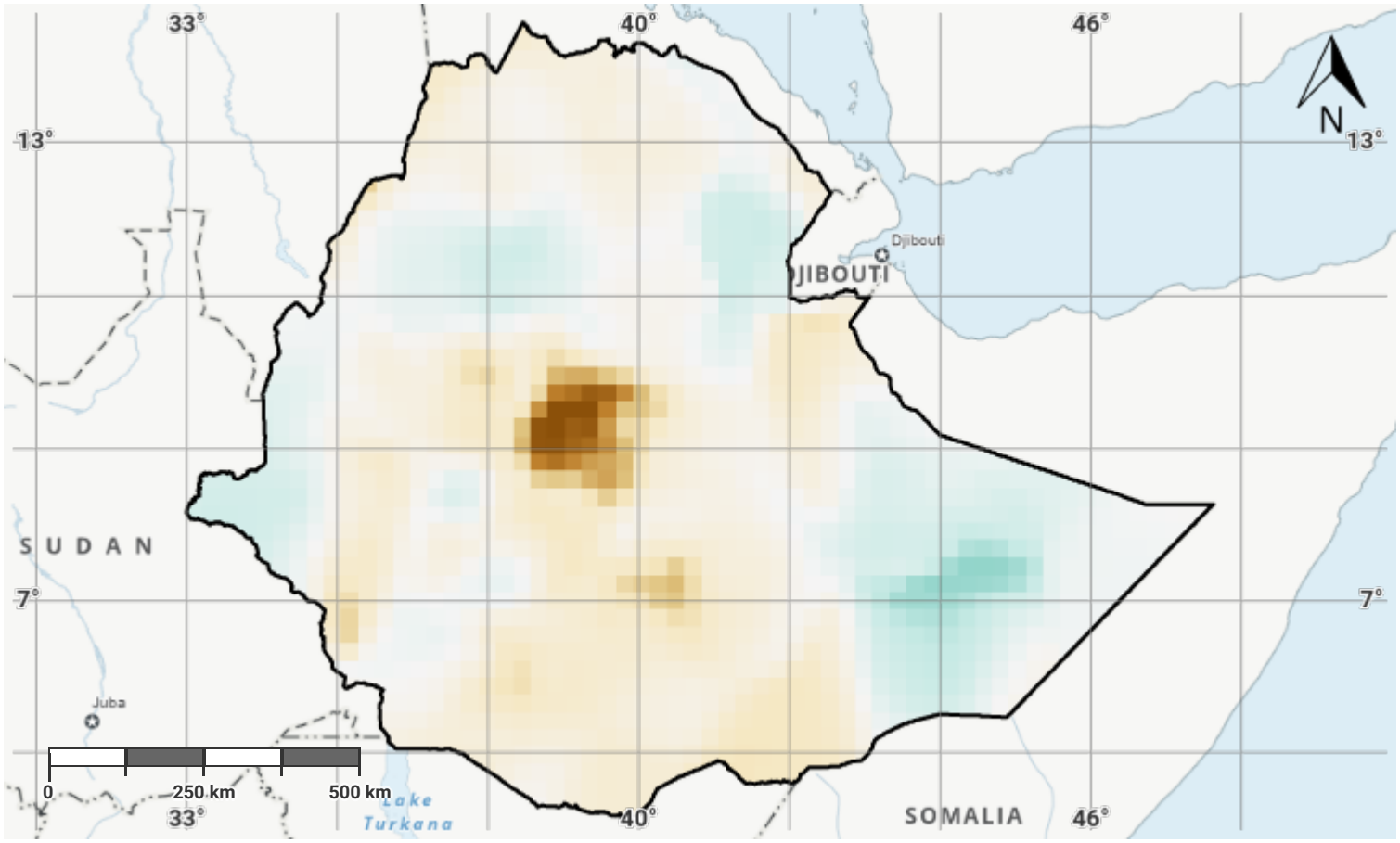
Ethiopia – SO3-1.M4

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)

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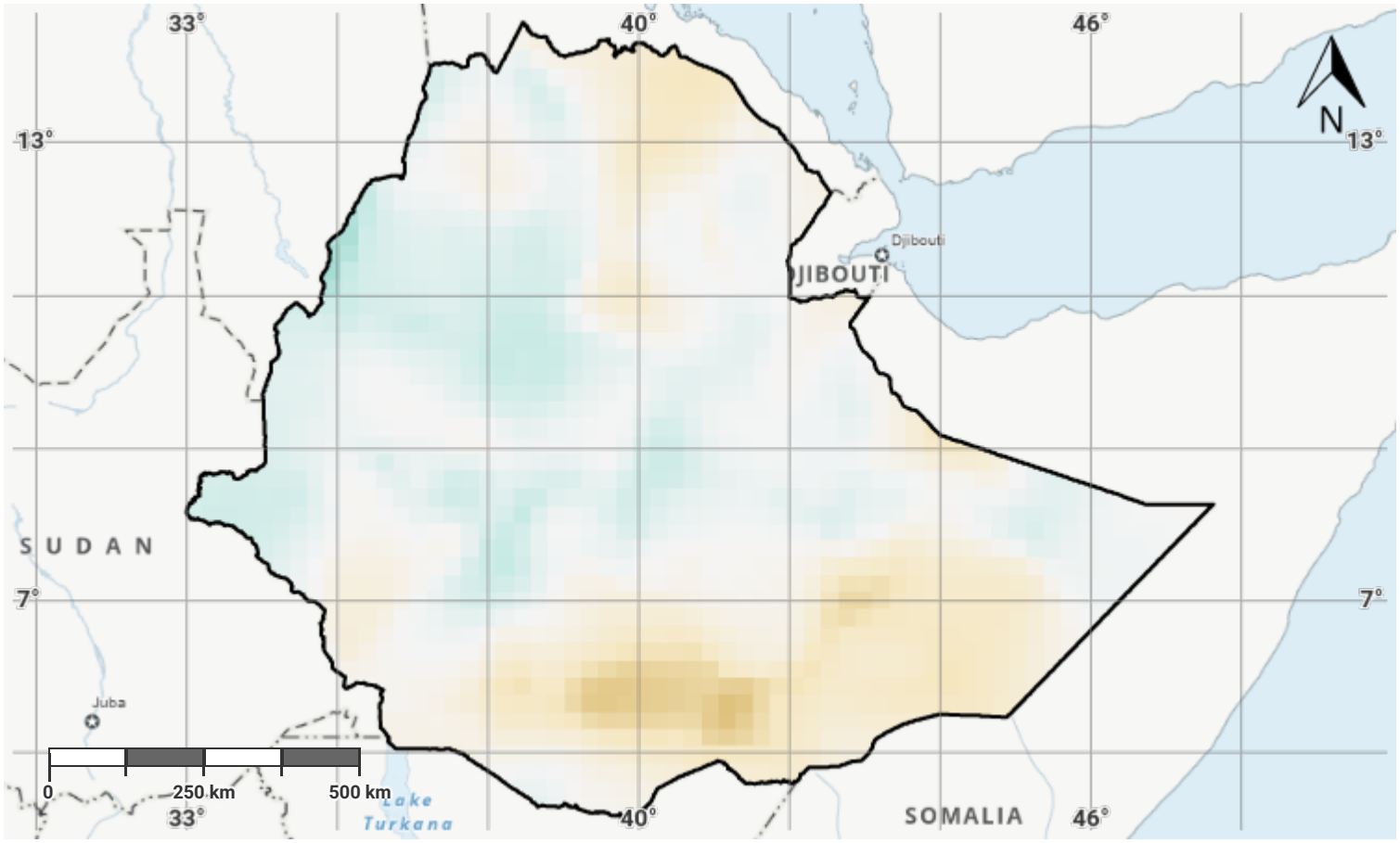
Ethiopia – SO3-1.M5

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)

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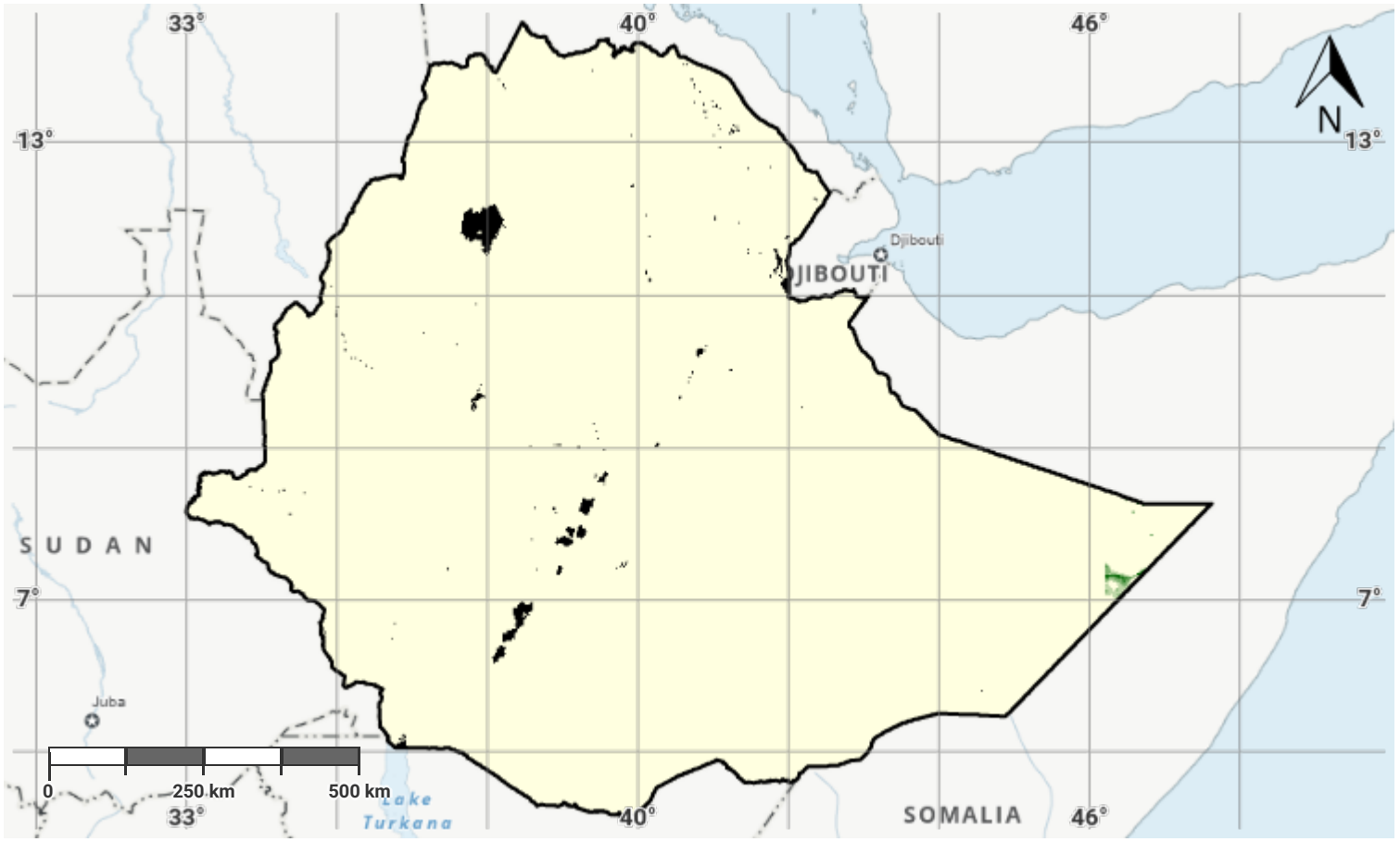
Ethiopia – SO3-2.M1

Drought exposure in first epoch of baseline period



Legend

- No data
- Population exposed to drought (number of people, total): 0 - 40
- No drought
- Population not exposed to drought (number of people, total): 0 - 40
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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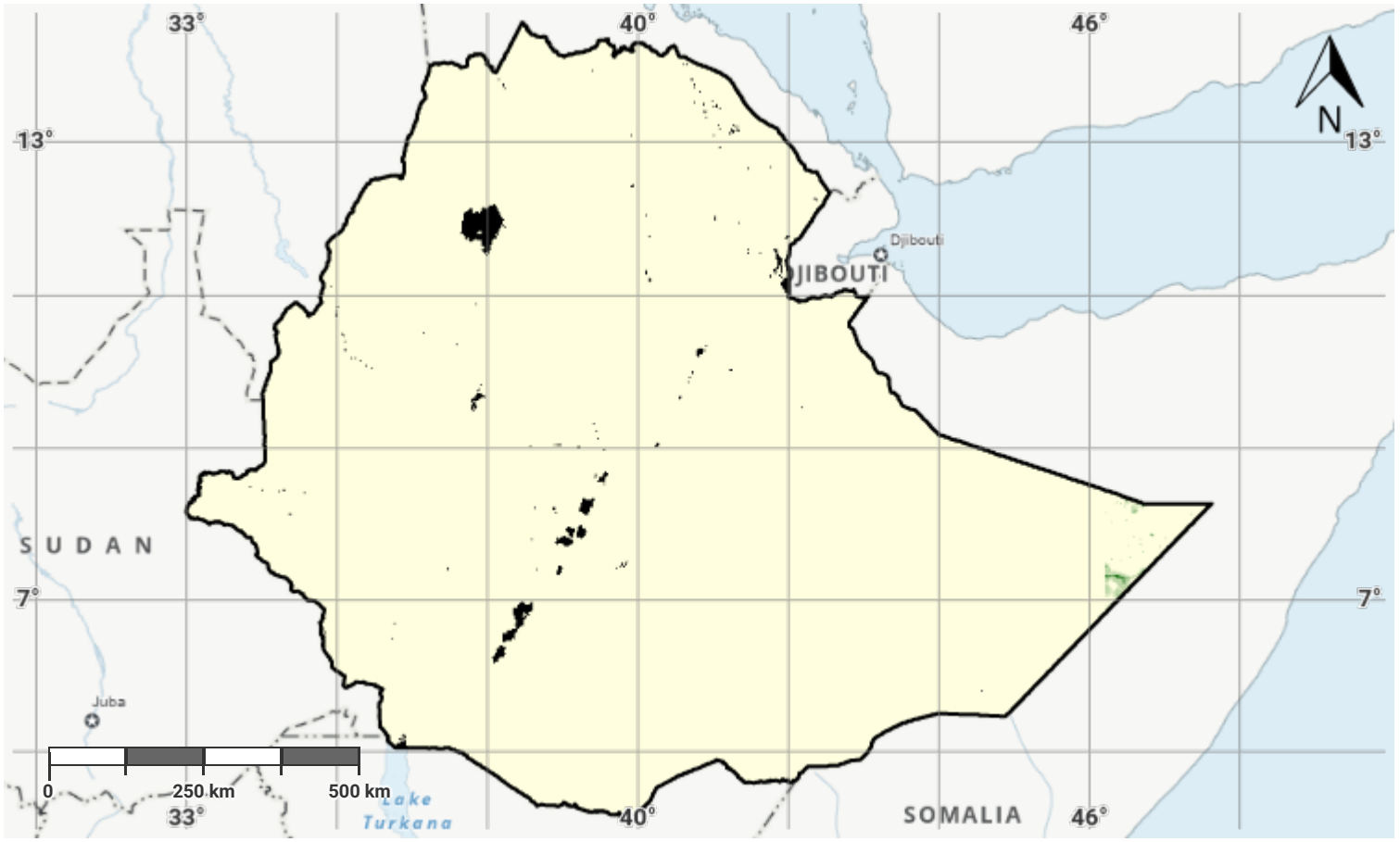
Ethiopia – SO3-2.M2

Drought exposure in second epoch of baseline period



Legend

- No data
- Population exposed to drought (number of people, total): 0 - 80
- No drought
- Population not exposed to drought (number of people, total): 0 - 80
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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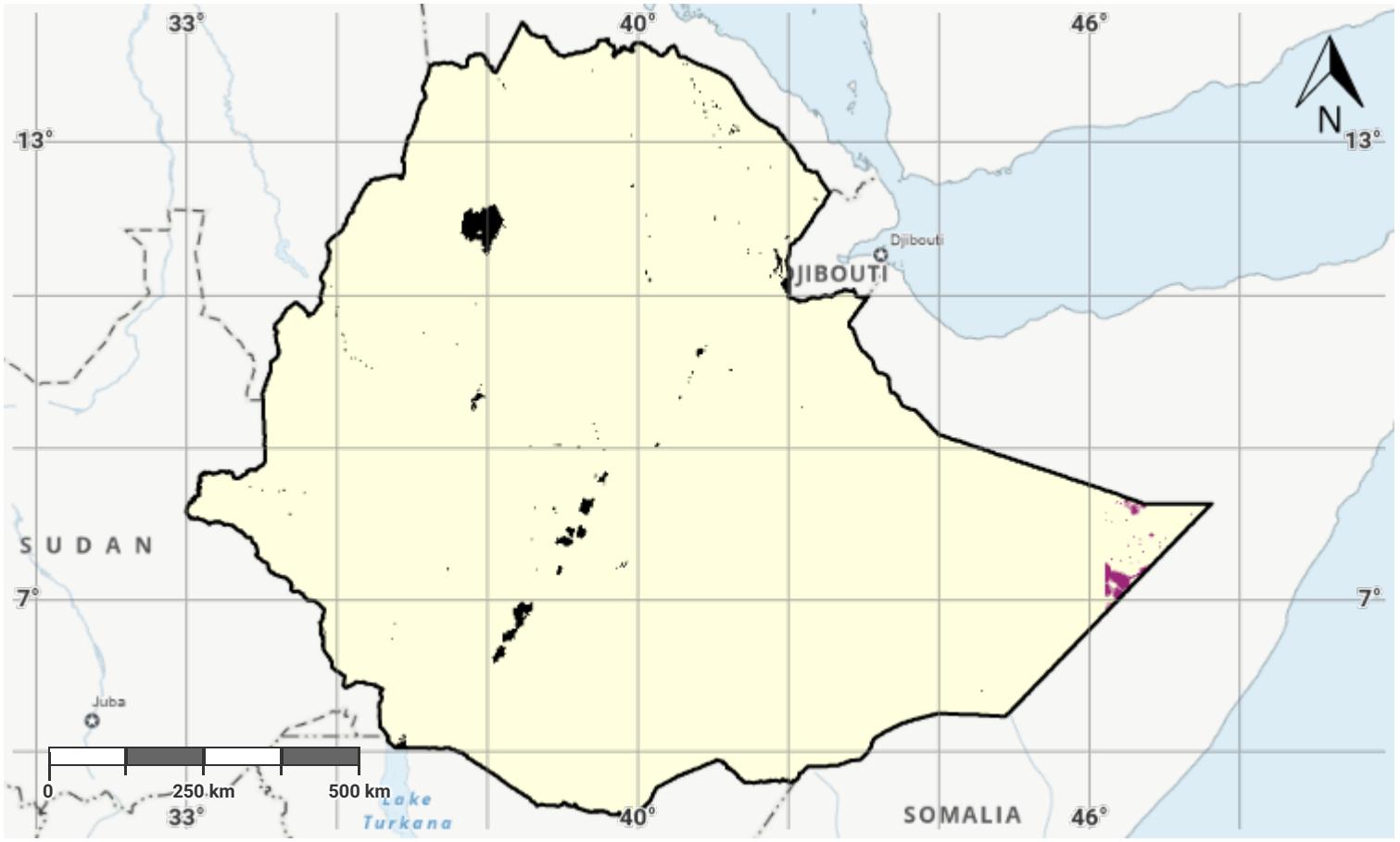
Ethiopia – SO3-2.M3

Drought exposure in third epoch of baseline period



Legend

- No data
- Population exposed to drought (number of people, total): 0 - 20
- No drought
- Population not exposed to drought (number of people, total): 0 - 20
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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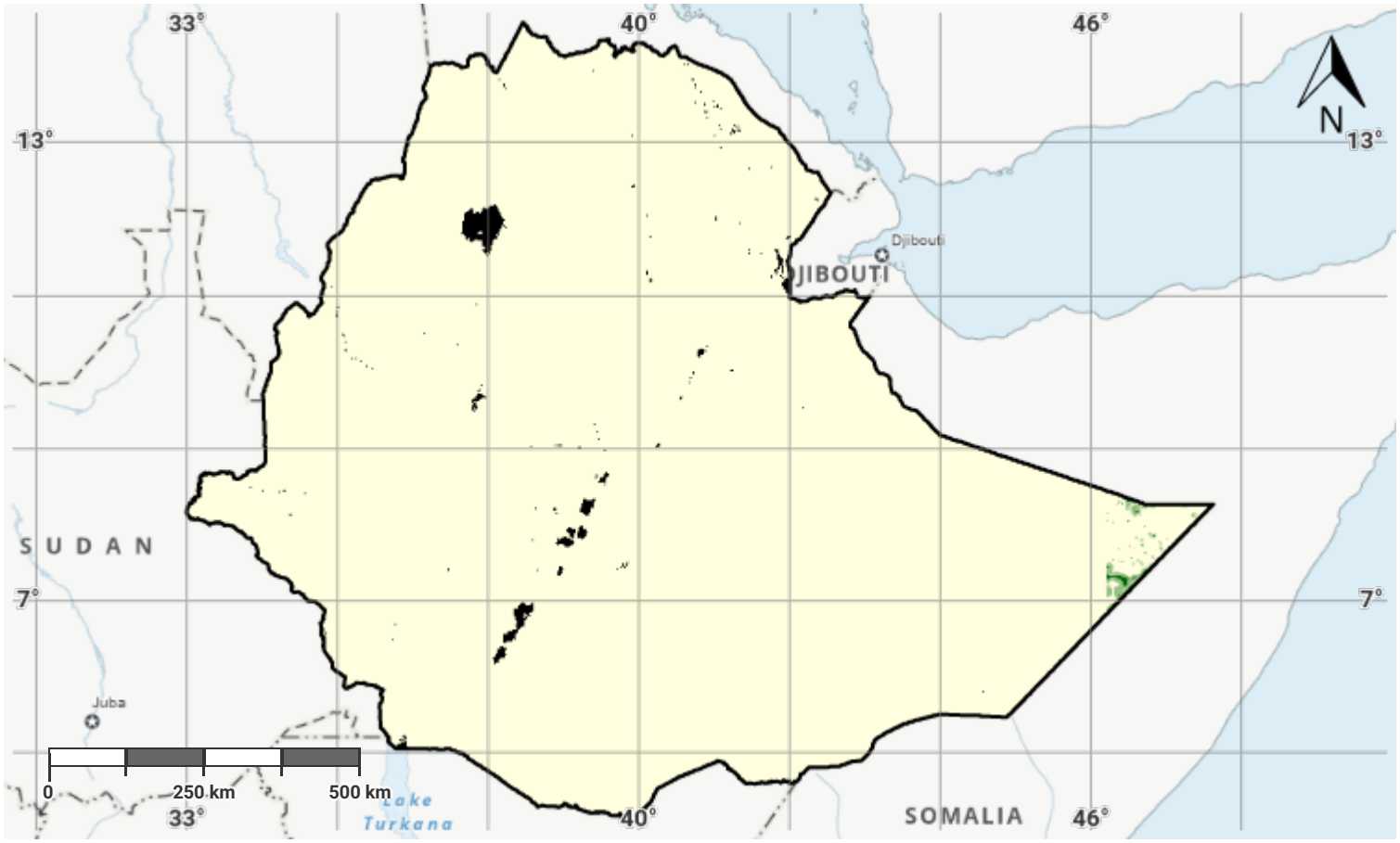
Ethiopia – SO3-2.M4

Drought exposure in fourth epoch of baseline period



Legend

- No data
- Population exposed to drought (number of people, total): 0 - 50
- No drought
- Population not exposed to drought (number of people, total): 0 - 50
- International Boundary

Projection: EPSG:3857 (Web Mercator)

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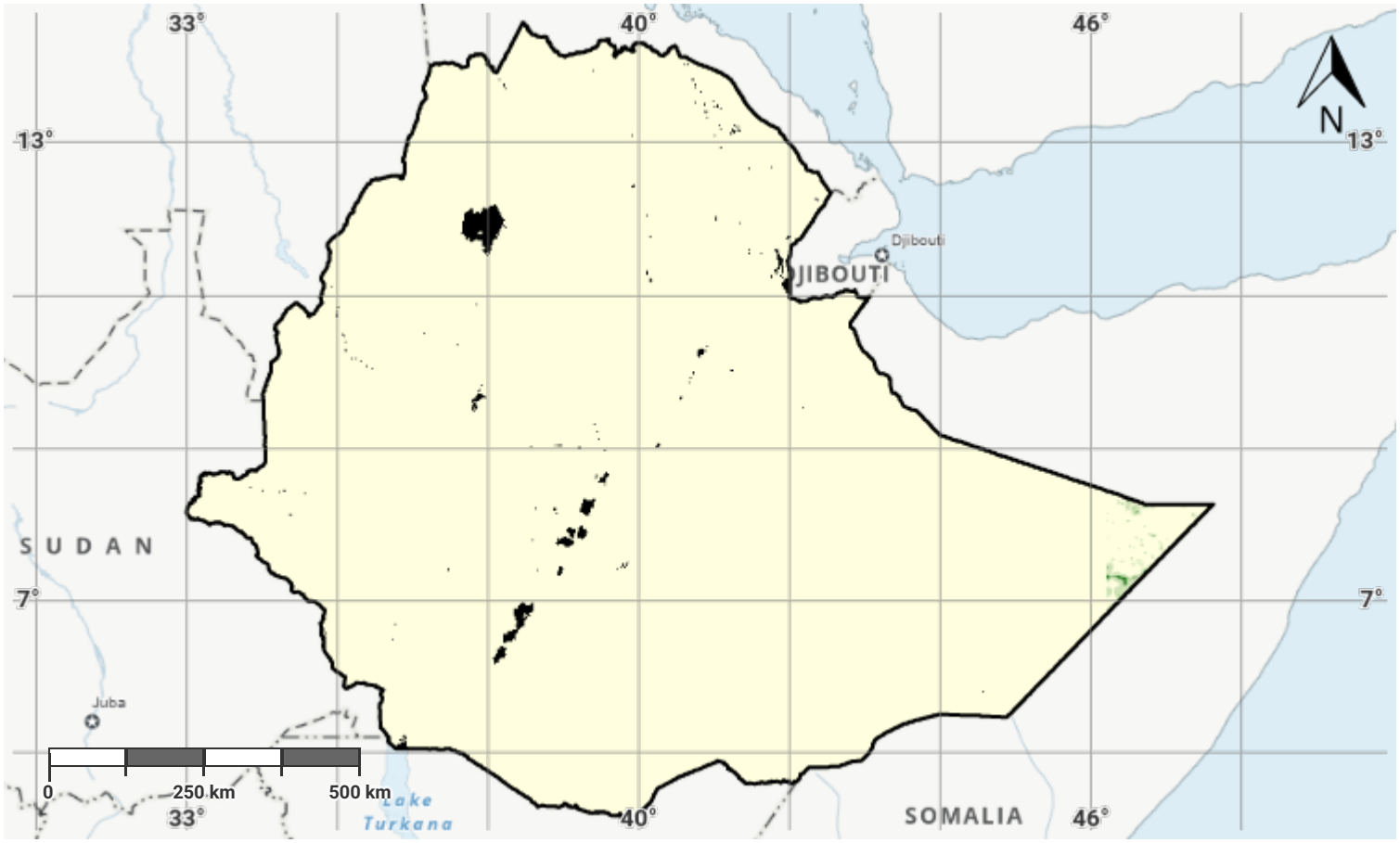
- Global Precipitation Climatology Centre (GPCC) monthly precipitation products,1982–present. URL: https://opendata.dwd.de/climate_environment/GPCC/html/gpcc_monitoring_v6_doi_download.html

Ethiopia – SO3-2.M5

Drought exposure in the reporting period



Legend

- No data
- Population exposed to drought (number of people, total): 0 - 110
- No drought
- Population not exposed to drought (number of people, total): 0 - 110
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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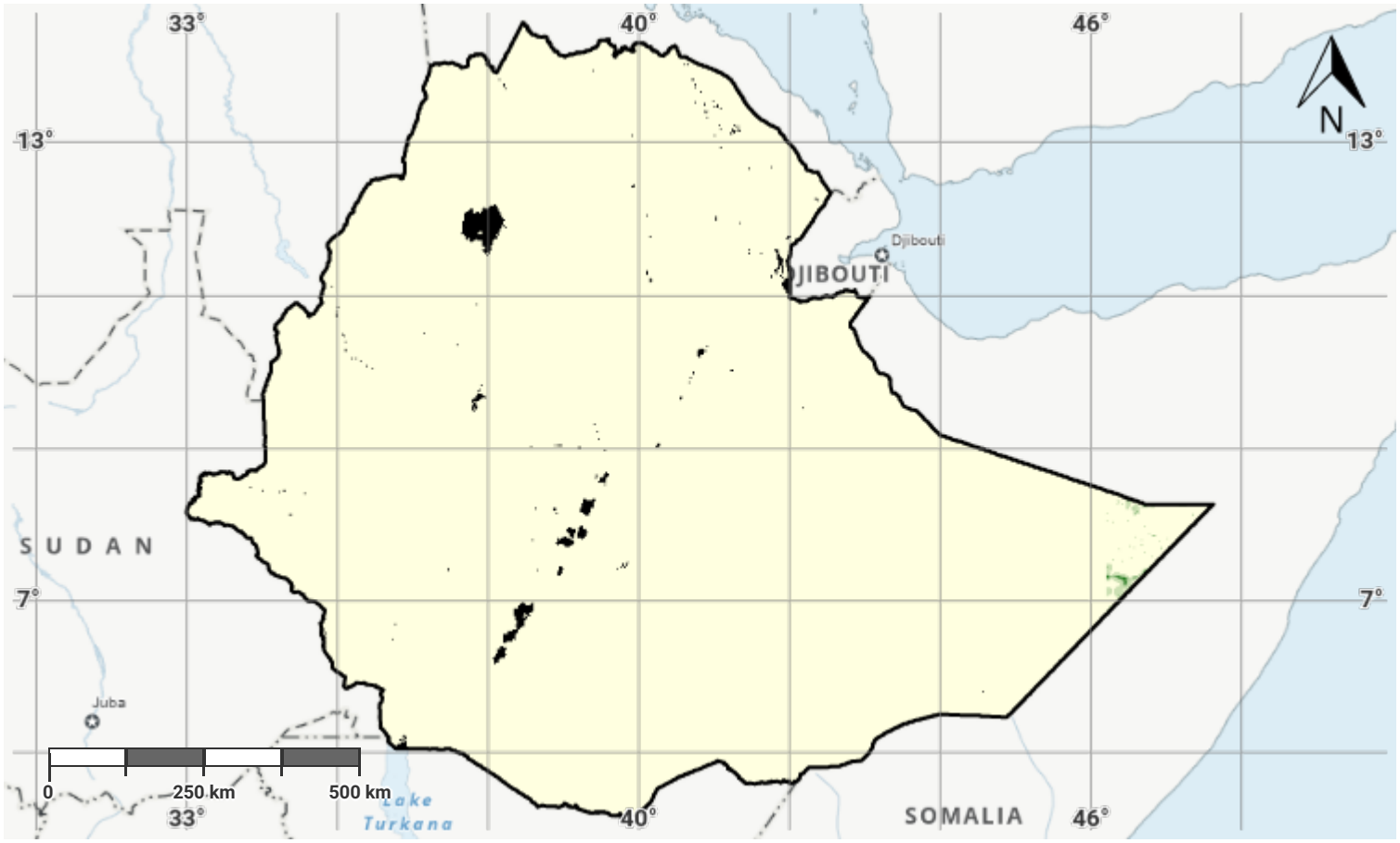
Ethiopia – SO3-2.M6

Female drought exposure in the reporting period



Legend

- No data
- Population exposed to drought (number of people, female): 0 - 50
- No drought
- Population not exposed to drought (number of people, female): 0 - 50
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

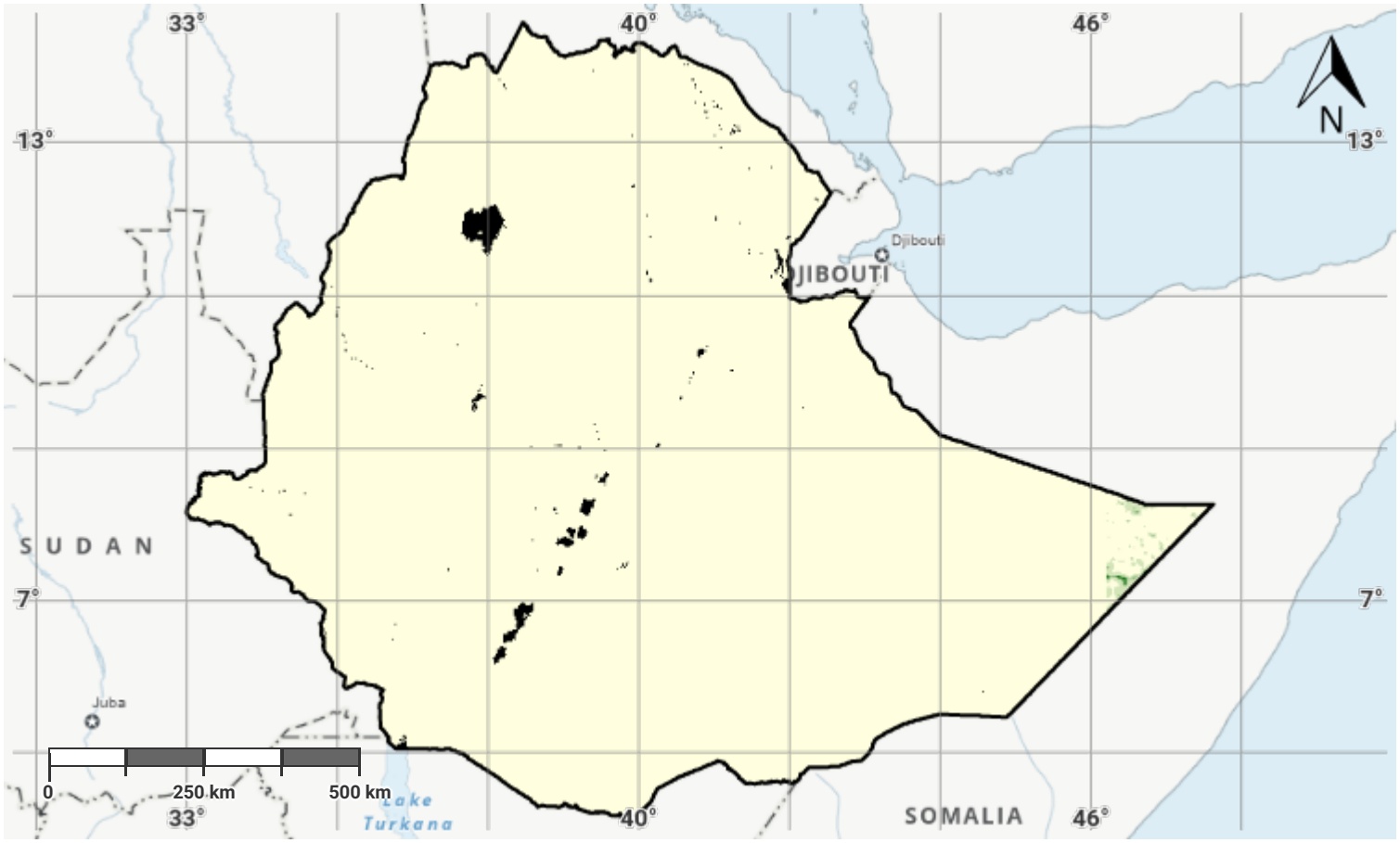
The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Convention to Combat Desertification (UNCCD) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. All maps represent the terrestrial area of the country; offshore islands, overseas departments and territories may not be displayed due to cartographic limitations.

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

Ethiopia – SO3-2.M7

Male drought exposure in the reporting period



Legend

- No data
- Population exposed to drought (number of people, male): 0 - 60
- No drought
- Population not exposed to drought (number of people, male): 0 - 60
- International Boundary

Projection: EPSG:3857 (Web Mercator)

Disclaimer

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