

## Supplementary Information to Land cover degradation in the reference and monitoring periods of the SDG Land Degradation Neutrality Indicator for Switzerland

Land categories in the Swiss Corine land cover (CLC) data classification scheme of the years 2000 and 2018 (i.e., CLC2000, CLC2018) and those of the *Arealstatistik* were aggregated to match those utilized for setting the Land Degradation Neutrality (LDN) baseline by the United Nations Convention to Combat Desertification (see Table SI1 and SI2 for the new LDN land cover categories for the CLC and the *Arealstatistik* respectively).

Table SI1: Reclassified Corine land cover (CLC) categories utilized for Switzerland

CLC code	CLC class	LDN code	New classes for LDN
111	Continuous urban fabric	5	Artificial surface
112	Discontinuous urban fabric	5	Artificial surface
121	Industrial or commercial units	5	Artificial surface
122	Road and rail networks and associated land	5	Artificial surface
124	Airports	5	Artificial surface
131	Mineral extraction sites	6	Otherland
141	Green urban areas	5	Artificial surface
142	Sport and leisure facilities	5	Artificial surface
211	Non-irrigated arable land	3	Cropland
221	Vineyards	3	Cropland
222	Fruit trees and berry plantations	3	Cropland
231	Pastures	2	Grassland
242	Complex cultivation patterns	3	Cropland
243	Land principally occupied by agriculture, with significant areas of natural vegetation	3	Cropland
311	Broad-leaved forest	1	Tree-covered area
312	Coniferous forest	1	Tree-covered area
313	Mixed forest	1	Tree-covered area
321	Natural grasslands	2	Grassland
322	Moors and heathland	2	Grassland
324	Transitional woodland-shrub	1	Tree-covered area
332	Bare rocks	6	Otherland
333	Sparsely vegetated areas	6	Otherland
335	Glaciers and perpetual snow	6	Otherland
411	Inland marshes	4	Wetland
412	Inland wetlands > Peat bogs	4	Wetland
511	Water courses	7	Waterbody
512	Water bodies	7	Waterbody

Table SI2: Reclassification of the *Arealstatistik* land cover classes

<b>*Arealstatistik classes</b>	<b>LDN code</b>	<b>New classes for LDN</b>
Industrie- und Gewerbeareal	5	Artificial Surfaces
Gebäudeareal	5	Artificial Surfaces
Verkehrsflächen	5	Artificial Surfaces
Besondere Siedlungsflächen	5	Artificial Surfaces
Erholungs- und Grünanlagen	5	Artificial Surfaces
Obst-, Reb-, und Gartenbauflächen	3	Cropland
Ackerland	3	Cropland
Naturwiesen, Heimweiden	2	Grassland
Alpwirtschaftsflächen	2	Grassland
Wald	1	Forest
Gebüschwald	1	Forest
Gehölze	1	Forest
Stehende Gewässer	7	Waterbody
Fliessgewässer	7	Waterbody
Unproduktive Vegetation	2	Grassland
Vegetationslose Flächen	6	Otherland
Gletscher, Firm	6	Otherland

Note: \*The *Arealstatistik* land use classes are in German

Table SI3: Confusion matrices for the annual land cover maps produced for Switzerland between 2015 and 2020

	Tree-covered areas	Grassland	Cropland	Wetland	Artificial Surfaces	Otherland	Waterbody	Total	User accuracy (%)
<b>2015</b>									
Tree-covered areas	91	1	1	1	1	0	0	95	96
Grassland	1	86	5	1	0	1	0	94	92
Cropland	0	7	82	5	3	0	0	97	85
Wetland	5	3	5	84	0	0	0	97	87
Artificial Surfaces	1	0	6	1	95	0	0	103	92
Otherland	0	1	0	0	0	97	0	98	99
Waterbody	1	1	0	0	0	1	99	102	97
Total	99	99	99	99	99	99	99	686	
<b>Producer accuracy (PA, %)</b>	92	87	83	91	96	98	100		<b>92</b>
<b>2016</b>									
Tree-covered areas	87	6	3	17	2	1	2	118	73
Grassland	4	85	6	8	1	6	0	110	77
Cropland	2	4	81	26	17	0	0	130	62
Wetland	5	1	8	45	5	0	0	64	70
Artificial Surfaces	0	1	2	4	74	2	0	83	89
Otherland	1	3	0	0	1	91	3	99	92
Waterbody	1	0	0	0	0	0	95	96	99
Total	100	100	100	100	100	100	100	700	
<b>PA (%)</b>	87	85	81	45	74	91	95		<b>80</b>
<b>2017</b>									
Tree-covered areas	88	1	2	8	0	0	1	100	88.0
Grassland	7	86	3	1	0	3	0	100	86.0
Cropland	2	0	73	5	20	0	0	100	73.0
Wetland	17	12	9	53	8	0	1	100	53.0
Artificial Surfaces	0	4	13	5	78	0	0	100	78.0
Otherland	0	4	0	0	0	95	1	100	95.0
Waterbody	9	1	0	0	0	2	88	100	88.0
Total	123	108	100	72	106	100	91	700	
<b>PA (%)</b>	72	80	73	74	74	95	97		<b>80</b>
<b>2018</b>									
Tree-covered areas	83	5	1	6	0	1	4	100	83
Grassland	1	95	2	0	0	2	0	100	95
Cropland	1	0	90	1	8	0	0	100	90
Wetland	17	10	9	57	6		1	100	57
Artificial Surfaces	0	2	24	4	69	1	0	100	69
Otherland	0	3	0	0	0	97	0	100	97
Waterbody	3	0	0	0	0	1	96	100	96
Total	105	115	126	68	83	102	101	700	
<b>PA (%)</b>	79	83	71	84	83	95	95		<b>84</b>
<b>2019</b>									
Tree-covered areas	178	25	13	5	8	3	0	232	77
Grassland	22	38	0	0	2	11	0	73	52
Cropland	9	1	99	3	18	0	0	130	76
Wetland	0	0	0	5	3	0	0	8	63
Artificial Surfaces	5	0	5	2	96	0	0	108	89

Otherland	6	8	0	0	0	78	0	92	85
Waterbody	0	0	0	3	0	0	23	26	89
Total	220	72	117	18	127	92	23	669	
<b>PA (%)</b>	81	53	85	28	76	85	100		<b>77</b>
<b>2020</b>									
Tree-covered areas	93	3	0	1	1	0	0	98	95
Grassland	0	82	6	0	0	2	0	90	91
Cropland	0	6	75	2	3	0	0	86	87
Wetland	4	6	6	88	0	0	0	104	85
Artificial Surfaces	0	0	10	0	92	0	0	102	90
Otherland	0	0	0	0	1	94	0	95	99
Waterbody	0	0	0	0	0	1	97	98	99
Total	97	97	97	91	97	97	97	673	
<b>PA (%)</b>	96	85	77	97	95	97	100		<b>92</b>