Supplementary materials

1. *Landsat Data Acquisition and Preprocessing*

Landsat 5 and 8 scenes were acquired from the US Geological Survey's Earth Explorer online platform to cover the study site: two overlapping Landsat scenes (path 135, rows 19 and 20) for the study area (Supplementary Table S1). Imagery for the mid-1980s, mid-1990s, mid-2000s, and mid-2010s were selected to align with major shifts in political and socioeconomic regimes described in the paper. Summer acquisition dates were chosen to distinguish vegetated areas better and minimize atmospheric interferences.

Supplementary Table S1. Landsat imagery acquisition data.

Number of Scenes	Landsat Collection	Image Dates	Path(s), Row(s)
Tokma study area			
2	Landsat 5 TM Collection 1 Tier 1	06/23/1986	path 135, rows 19 & 20
2	Landsat 5 TM Collection 1 Tier 1	06/21/1997	path 135, rows 19 & 20
2	Landsat 5 TM Collection 1 Tier 1	07/11/2010	path 135, rows 19 & 20
1	Landsat 8 Collection 1 Tier 1	07/04/2019	path 135, row 19
1	Landsat 8 Collection 1 Tier 1	08/05/2019	path 135, row 20

2. *Classification Accuracy Assessments*

Supplementary Table S2. Confusion matrices for (A) 1986, (B) 1997, (C) 2010, and (D) 2019 classified thematic maps of the study area, including the overall, user's, producer's, and kappa accuracy statistics.

A. 1986	**Verification Data (Known Land cover Type)**						
Classification Data	Conifer	Mixed	Built Up	Peatlands	Barren	Burned	**User's accuracy**
Conifer	150	4	0	2	0	0	96.15
Mixed	4	52	0	3	0	0	88.14
Built Up	0	0	7	3	0	0	70
Peatlands	0	1	1	25	6	0	75.76
Barren	0	0	0	7	19	1	70.37
Burned	0	0	0	0	2	13	86.67
Producer's Accuracy	97.4	91.23	87.5	62.6	70.37	92.86	
Overall Accuracy 88.67				**Kappa Statistics 0.8308**			

B. 1997	**Verification Data (Known Land cover Type)**						
Classification Data	Conifer	Mixed	Built Up	Peatlands	Barren	Burned	**User's accuracy**
Conifer	135	5	0	0	0	0	96.43
Mixed	2	53	0	3	0	0	91.38
Built Up	0	0	9	0	1	0	90
Peatlands	0	2	1	35	6	0	79.55
Barren	0	0	1	6	24	1	75
Burned	0	0	0	0	1	15	93.75
Producer's Accuracy	98.54	88.33	81.82	79.55	75	93.75	
Overall Accuracy 90.33				**Kappa Statistics 0.8641**			

C. 2010	**Verification Data (Known Land cover Type)**						
Classification Data	Conifer	Mixed	Built Up	Peatlands	Barren	Burned	**User's accuracy**
Conifer	126	5	0	0	3	0	94.03
Mixed	2	53	0	4	0	0	89.83
Built Up	0	0	7	1	1	1	70
Peatlands	0	3	1	40	5	0	81.63
Barren	0	0	1	4	27	1	81.82
Burned	0	0	0	1	0	14	93.33
Producer's Accuracy	98.44	86.89	77.78	80	75	87.5	
Overall Accuracy 89.0				**Kappa Statistics 0.8483**			

D. 2019	**Verification Data (Known Land cover Type)**						
Classification Data	Conifer	Mixed	Built Up	Peatlands	Barren	Burned	**User's accuracy**
Conifer	108	7	0	0	2	0	92.31
Mixed	4	51	0	4	0	0	86.44
Built Up	0	0	7	0	3	0	70
Peatlands	0	6	0	37	3	0	80.43
Barren	0	0	0	6	47	0	83.93
Burned	0	0	3	1	2	9	75
Producer's Accuracy	96.43	79.69	70	77.08	82.46	100	
Overall Accuracy 86.33				**Kappa Statistics 0.8178**			