

Table S1. Sampling (in pixels count) used for land use / land cover classification in the Mogtedo region, Burkina Faso

	Bare soil	Hydromorphic soil	Irrigated areas	Rainfed areas	Water bodies	Total
Landsat-5 TM (1987)	1348	398	382	656	246	3030
Landsat-7 ETM+ (2000)	1348	384	570	656	246	3204
Landsat-8 OLI (2015)	1348	384	570	656	246	3204

Table S2. Matrix of LULC changes between the time intervals 1987-2000 and 2000-2015 across the Mogtiedo region, Burkina Faso. Data are expressed in percentage of the map. The main diagonal of the matrix represents the Persistence, and the changes are data off the main diagonal.

		2000						
		Bare soil	Hydromorphic soil	Irrigated areas	Rainfed areas	Water bodies	Total 1987	Loss
1987	Bare soil	49.341	0	0.273	5.585	0	55.199	5.857
	Hydromorphic soil	0	24.654	0	0	0	24.654	0
	Irrigated areas	0	0	3.282	0	0	3.282	0
	Rainfed areas	0	0	0.239	14.555	0	14.794	0.239
	Water bodies	0	0.085	0.067	0	1.920	2.071	0.151
	Total 2000	49.341	24.739	3.860	20.140	1.920	100	6.247
	Gain	0	0.085	0.578	5.585	0	6.247	
		Bare soil	Hydromorphic soil	Irrigated areas	Rainfed areas	Water bodies	Total 2015	Gain
2015	Bare soil	44.195	0	0	0	0	44.195	0
	Hydromorphic soil	0	24.735	0	0	0.351	25.086	0.351
	Irrigated areas	0.760	0	3.860	0.414	0	5.038	1.178
	Rainfed areas	4.386	0	0	19.726	0	24.112	4.386
	Water bodies	0	0	0	0	1.568	1.568	0
	Total 2000	49.341	24.739	3.860	20.140	1.920	100	5.916
	Loss	5.146	0	0	0.414	0.351	5.916	

Table S3. Matrix of LULC changes between the time interval 1987-2015 across the Mogtedo region, Burkina Faso. Data are expressed in percentage of the map. The main diagonal of the matrix represents the persistence, and the changes are data off the main diagonal.

		1987						
		Bare soil	Hydromorphic soil	Irrigated areas	Rainfed areas	Water bodies	Total 2015	Gain
2015	Bare soil	44.195	0	0	0	0	44.195	0
	Hydromorphic soil	0	24.654	0	0	0.432	25.086	0.432
	Irrigated areas	1.033	0	3.282	0.653	0.070	5.038	1.756
	Rainfed areas	9.971	0	0	14.141	0	24.112	9.971
	Water bodies	0	0	0	0	1.568	1.568	0
	Total 1987	55.199	24.654	3.282	14.794	2.071	100	12.159
	Loss	11.004	0	0	0.653	0.503	12.159	