



Appendix

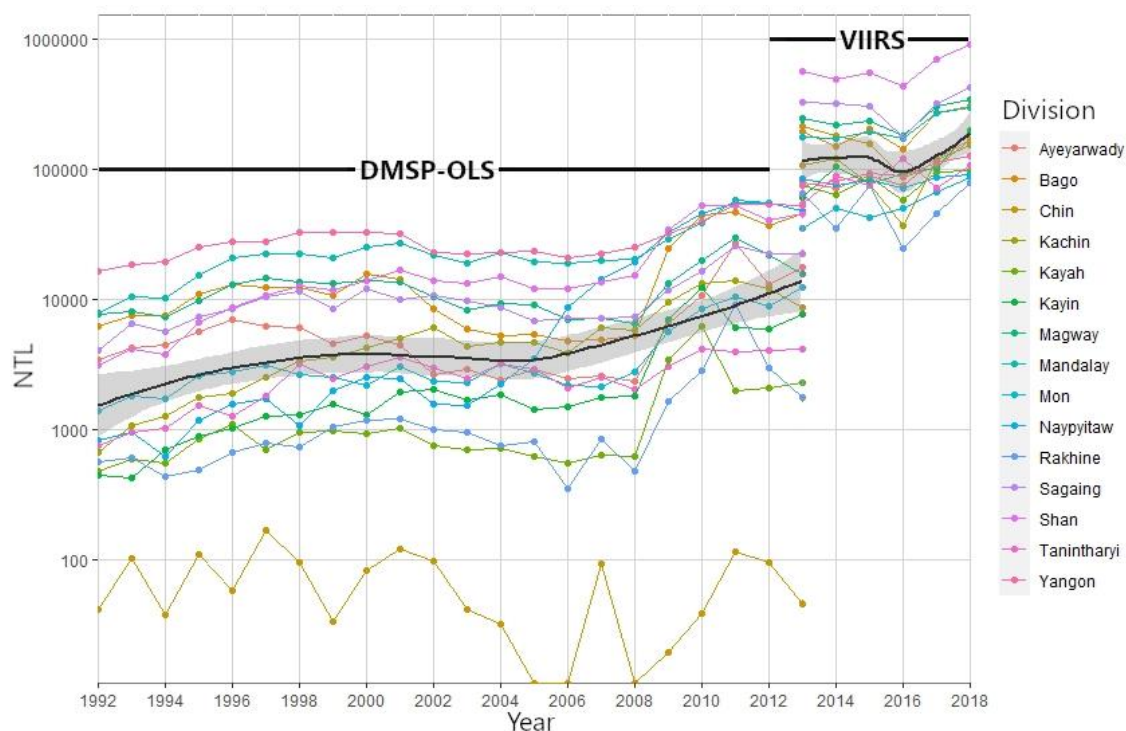


Figure S1. Comparison of NTL values of the Harmonized DMSP-OLS composites (1992–2013) and Simulated DMSP-OLS composites derived from VIIRS data (2013–2018) generated by Li et al. (2020) [55]. As the Simulated DMSP-OLS composites demonstrated a significant jump in the values, we chose not to use them in our analysis.

Table S1. Total DMPS-OLS (in DN) by year for each administrative unit (1992-2013).

Name	km ²	Admin. unit	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Annual rate of change	NTL/km ² (2013)
Ayeyarwady	33606	region	3493	4309	4442	5749	7031	6268	6040	4604	5315	4510	2656	2938	2413	2901	2465	2595	2361	6622	10883	27343	12964	17641	8.0%	0.52
Bago	38870	region	6225	7499	7572	11142	13074	12504	12316	10654	15695	14407	8586	6011	5255	5479	4836	4893	5344	24886	44428	46559	37251	45873	10.0%	1.18
Chin	35985	state	42	103	38	111	58	169	96	34	84	121	99	42	32	0	0	93	0	20	39	115	97	46	0.4%	0.00
Kachin	89329	state	680	1083	1261	1782	1911	2517	3355	3589	4293	4988	6135	4424	4707	4737	3915	6036	5807	9598	13389	14115	12132	8624	12.9%	0.10
Kayah	11819	state	488	595	558	858	1115	705	964	980	927	1028	751	711	727	622	552	642	631	3448	6265	1991	2080	2334	7.7%	0.20
Kayin	30529	state	449	427	713	902	1026	1266	1309	1580	1306	1953	2045	1688	1852	1447	1514	1797	1817	7086	12355	6137	6025	7789	14.6%	0.26
Magway	44845	region	7782	8145	7448	9893	12953	14548	13804	13367	14022	13810	10546	8326	9241	9156	7038	7278	6582	13355	20128	29786	21922	15895	3.5%	0.35
Mandalay	31015	region	7903	10614	10288	15303	20859	22265	22673	21083	25232	27291	21904	19095	23144	19560	18959	19792	20245	29307	38368	57821	55560	48311	9.0%	1.56
Mon	11303	state	1401	1820	1717	2597	2767	3119	2690	2510	2216	3074	2372	2328	3228	2713	2188	2147	2784	5689	8594	10608	9006	12422	11.0%	1.10
Naypyitaw	7068	union terr.	834	966	627	1185	1582	1722	1081	2013	2512	2471	1593	1536	2260	3555	8707	14432	19500	32513	45526	55038	55421	47924	21.3%	6.78
Rakhine	34733	state	568	618	435	494	680	797	742	1061	1192	1231	999	959	760	820	355	847	480	1668	2855	9134	3031	1765	5.5%	0.05
Sagaing	93679	region	4098	6614	5710	7353	8417	10643	11584	8518	11995	9987	10759	9736	8614	6843	7138	7279	7298	11915.5	16533	26177	22338	22216	8.4%	0.24
Shan	156714	state	3126	4211	3813	6724	8727	10831	12604	11780	13931	17092	14031	13193	14994	12232	12231	13758	15322	34253	53184	52636	40962	45349	13.6%	0.29
Tanintharyi	41463	region	762	960	1028	1551	1287	1801	3212	2486	3066	3635	2975	2455	3222	2945	2103	2513	2061	3101	4141	4020	4095	4152	8.4%	0.10
Yangon	9805	region	16342	18607	19325	25075	27640	27558	33240	32909	32506	32315	23159	22530	23061	23565	21099	22578	25218	32354.5	39491	53926	54252	52959	5.8%	5.40
Myanmar	670673	national	54193	66571	64975	90719	109127	116713	125710	117168	134292	137913	108610	95972	103510	96575	93100	106680	115450	215815	316719	395406	337136	333300	9.0%	0.49

Table S2. Total DMPS-OLS (in DN) by year for each administrative unit (2013–2020).

Name	km ²	Administrative unit	2013	2014	2015	2016	2017	2018	2019	2020	Annual rate of change	Radiance/km ² (2020)
Ayeyarwady	33606	region	2271	2775	3164	2706	4405	4345	6892	6596	16.5%	0.20
Bago	38870	region	5477	6308	6927	5993	9999	10069	11845	11895	11.7%	0.31
Chin	35985	state	19	49	51	110	233	399	482	525	60.7%	0.01
Kachin	89329	state	1356	1660	2278	2290	3746	4099	4582	4056	16.9%	0.05
Kayah	11819	State	406	468	521	577	963	1097	1333	1505	20.6%	0.13
Kayin	30529	state	876	874	1191	1184	2161	2097	3034	2881	18.5%	0.09
Magway	44845	region	4176	5010	5277	5257	7237	8035	9148	9764	12.9%	0.22
Mandalay	31015	region	12529	16040	17854	18882	26356	31051	36126	35956	16.3%	1.16
Mon	11303	state	2110	2174	3218	3259	5741	5204	6607	6807	18.2%	0.60
Naypyitaw	7068	union territory	19728	20689	18879	16540	18303	15957	17141	14287	−4.5%	2.02
Rakhine	34733	state	402	816	1252	1356	1813	2064	2512	2386	29.0%	0.07
Sagaing	93679	region	4294	5670	6560	6732	11577	13923	14985	14678	19.2%	0.16
Shan	156714	state	6613	8105	8840	8813	13577	15031	17506	17576	15.0%	0.11
Tanintharyi	41463	region	698	705	1083	987	1794	1461	2225	2839	22.2%	0.07
Yangon	9805	region	18536	20898	24665	24031	31461	25527	40091	37966	10.8%	3.87
Myanmar	670673	national	79491	92241	101760	98717	139366	140359	174509	169717	11.4%	0.25

Table S3. Total radiance ($\text{nW}\cdot\text{cm}^{-2}\cdot\text{sr}^{-1}$) in Myanmar's domestic and foreign borderlands (2013—2020).

Year	Domestic borderlands	Foreign borderlands	Ratio (Domestic/Foreign)
2013	2732	27796	0.10
2014	3520	29927	0.12
2015	3689	33787	0.11
2016	3767	30266	0.12
2017	5424	43058	0.13
2018	6150	41564	0.15
2019	8630	49784	0.17
2020	8544	50891	0.17
Average	5307	38384	0.13