Supplementary materials

PA: Producer's accuracy
UA: User's accuracy
CI: 95% confidence interval

Supplementary 1: Error matrices for the Global Forest Change map using pixel-based reference data

Table S1. Error matrix for the Global Forest Change map using pixel-based reference data in 2001

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9978	0.0014	0.9998	0.0003	0.9986	0.0005	0.9984	0.0005
disturbance	0.0002	0.0006	0.3068	0.1058	0.7531	0.2507		

Table S2. Error matrix for the Global Forest Change map using pixel-based reference data in 2002

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9981	0.0011	0.9998	0.0003	0.9989	0.0004	0.9986	0.0005
disturbance	0.0002	0.0005	0.3224	0.1128	0.7042	0.2598		

Table S3. Error matrix for the Global Forest Change map using pixel-based reference data in 2003

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9979	0.0008	0.9995	0.0004	0.9992	0.0003	0.9987	0.0006
disturbance	0.0005	0.0008	0.4880	0.1322	0.6180	0.2274		

Table S4. Error matrix for the Global Forest Change map using pixel-based reference data in 2004

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9978	0.0007	0.9993	0.0005	0.9993	0.0003	0.9986	0.0006
disturbance	0.0007	0.0007	0.4870	0.1424	0.5058	0.2059		

Table S5. Error matrix for the Global Forest Change map using pixel-based reference data in 2005

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9967	0.0009	0.9990	0.0008	0.9991	0.0004	0.9981	0.0009
disturbance	0.0010	0.0014	0.6014	0.1274	0.5704	0.1970		

Table S6. Error matrix for the Global Forest Change map using pixel-based reference data in 2006

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9978	0.0007	0.9996	0.0004	0.9993	0.0005	0.9989	0.0006
disturbance	0.0004	0.0011	0.5935	0.1676	0.7523	0.2001		

Table S7. Error matrix for the Global Forest Change map using pixel-based reference data in 2007

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9980	0.0004	0.9994	0.0005	0.9996	0.0002	0.9990	0.0005
disturbance	0.0006	0.0010	0.6876	0.1237	0.6265	0.2205		

Table S8. Error matrix for the Global Forest Change map using pixel-based reference data in 2008

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9979	0.0006	0.9995	0.0004	0.9994	0.0004	0.9989	0.0006
disturbance	0.0005	0.0010	0.6032	0.1648	0.6575	0.2099		

Table S9. Error matrix for the Global Forest Change map using pixel-based reference data in 2009

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9979	0.0006	0.9995	0.0004	0.9994	0.0003	0.9989	0.0005
disturbance	0.0005	0.0010	0.6473	0.1426	0.6808	0.2068		

Table S10. Error matrix for the Global Forest Change map using pixel-based reference data in 2010

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9974	0.0007	0.9992	0.0006	0.9993	0.0004	0.9985	0.0007
disturbance	0.0008	0.0010	0.5803	0.1529	0.5598	0.1909		

Table S11. Error matrix for the Global Forest Change map using pixel-based reference data in 2011

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9979	0.0008	0.9997	0.0004	0.9992	0.0003	0.9989	0.0005
disturbance	0.0003	0.0010	0.5643	0.1384	0.7445	0.2131		

Table S12. Error matrix for the Global Forest Change map using pixel-based reference data in 2012

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9980	0.0007	0.9997	0.0004	0.9993	0.0003	0.9990	0.0005
disturbance	0.0003	0.0010	0.5996	0.1348	0.7607	0.2109		

Table S13. Error matrix for the Global Forest Change map using pixel-based reference data in 2013

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9977	0.0008	0.9997	0.0003	0.9992	0.0004	0.9989	0.0005
disturbance	0.0003	0.0011	0.5748	0.1395	0.8037	0.1620		

Table S14. Error matrix for the Global Forest Change map using pixel-based reference data in 2014

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9972	0.0011	0.9996	0.0006	0.9989	0.0004	0.9984	0.0008
disturbance	0.0004	0.0012	0.5151	0.1182	0.7373	0.2886		

Table S15. Error matrix for the Global Forest Change map using pixel-based reference data in 2015

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9977	0.0007	0.9998	0.0003	0.9993	0.0003	0.9992	0.0004
disturbance	0.0002	0.0015	0.6829	0.1237	0.9018	0.1457		

Table S16. Error matrix for the Global Forest Change map using pixel-based reference data in 2016

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9965	0.0005	0.9989	0.0007	0.9994	0.0004	0.9984	0.0008
disturbance	0.0011	0.0018	0.7682	0.1342	0.6227	0.1563		

Table S17. Error matrix for the Global Forest Change map using pixel-based reference data in 2017

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9964	0.0009	0.9990	0.0007	0.9991	0.0005	0.9981	0.0008
disturbance	0.0010	0.0017	0.6475	0.1306	0.6248	0.1634		

Supplementary 2: Error matrices for the local disturbance map using pixel-based reference data

Table S18. Error matrix for the local disturbance map using pixel-based reference data in 2001

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9979	0.0003	0.9999	0.0001	0.9997	0.0004	0.9996	0.0004
disturbance	0.0001	0.0018	0.8727	0.1558	0.9365	0.0511		

Table S19. Error matrix for the local disturbance map using pixel-based reference data in 2002

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9982	0.0001	0.9999	0.0001	0.9999	0.0003	0.9998	0.0003
disturbance	0.0001	0.0015	0.9228	0.1406	0.9407	0.0529		

Table S20. Error matrix for the local disturbance map using pixel-based reference data in 2003

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9982	0.0001	0.9999	0.0001	0.9999	0.0003	0.9997	0.0003
disturbance	0.0001	0.0015	0.9207	0.1441	0.9101	0.0569		

Table S21. Error matrix for the local disturbance map using pixel-based reference data in 2004

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9984	0.0002	0.9998	0.0001	0.9998	0.0003	0.9997	0.0003
disturbance	0.0002	0.0013	0.8964	0.1590	0.8883	0.0751		

Table S22. Error matrix for the local disturbance map using pixel-based reference data in 2005

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9976	0.0003	0.9999	0.0001	0.9997	0.0004	0.9996	0.0004
disturbance	0.0001	0.0020	0.8860	0.1414	0.9306	0.0493		

Table S23. Error matrix for the local disturbance map using pixel-based reference data in 2006

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9981	0.0004	0.9999	0.0001	0.9996	0.0004	0.9996	0.0004
disturbance	0.0001	0.0014	0.7832	0.1931	0.9646	0.0426		

Table S24. Error matrix for the local disturbance map using pixel-based reference data in 2007

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9984	0.0001	0.9999	0.0001	0.9999	0.0003	0.9998	0.0003
disturbance	0.0001	0.0013	0.9105	0.1610	0.9163	0.0667		

Table S25. Error matrix for the local disturbance map using pixel-based reference data in 2008

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9983	0.0003	0.9999	0.0001	0.9997	0.0004	0.9996	0.0004
disturbance	0.0001	0.0013	0.8400	0.1891	0.9284	0.0599		

Table S26. Error matrix for the local disturbance map using pixel-based reference data in 2009

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9983	0.0001	0.9999	0.0001	0.9999	0.0003	0.9998	0.0003
disturbance	0.0001	0.0015	0.9204	0.1447	0.9345	0.0550		

Table S27. Error matrix for the local disturbance map using pixel-based reference data in 2010

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9981	0.0003	0.9999	0.0001	0.9997	0.0004	0.9996	0.0004
disturbance	0.0001	0.0015	0.8405	0.1751	0.9250	0.0601		

Table S28. Error matrix for the local disturbance map using pixel-based reference data in 2011

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9981	0.0003	0.9999	0.0001	0.9997	0.0004	0.9996	0.0004
disturbance	0.0001	0.0015	0.8565	0.1726	0.9193	0.0617		

Table S29. Error matrix for the local disturbance map using pixel-based reference data in 2012

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9981	0.0001	0.9999	0.0001	0.9999	0.0003	0.9997	0.0003
disturbance	0.0001	0.0016	0.9253	0.1364	0.9182	0.0601		

Table S30. Error matrix for the local disturbance map using pixel-based reference data in 2013

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9979	0.0003	0.9999	0.0001	0.9997	0.0004	0.9996	0.0004
disturbance	0.0001	0.0017	0.8699	0.1588	0.9238	0.0562		

Table S31. Error matrix for the local disturbance map using pixel-based reference data in 2014

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9975	0.0003	0.9999	0.0001	0.9997	0.0004	0.9996	0.0004
disturbance	0.0001	0.0021	0.8818	0.1355	0.9458	0.0439		

Table S32. Error matrix for the local disturbance map using pixel-based reference data in 2015

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9978	0.0003	0.9999	0.0001	0.9997	0.0004	0.9996	0.0004
disturbance	0.0001	0.0019	0.8791	0.1490	0.9400	0.0485		

Table S33. Error matrix for the local disturbance map using pixel-based reference data in 2016

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9975	0.0004	0.9999	0.0001	0.9996	0.0004	0.9995	0.0004
disturbance	0.0001	0.0020	0.8371	0.1568	0.9400	0.0463		

Table S34. Error matrix for the local disturbance map using pixel-based reference data in 2017

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9973	0.0004	0.9999	0.0001	0.9996	0.0004	0.9995	0.0004
disturbance	0.0001	0.0022	0.8529	0.1440	0.9708	0.0326		

Supplementary 3: Error matrices for the Global Forest Change map using grid reference data

Table S35. Error matrix for the Global Forest Change map using grid reference data in 2013

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9975	0.0009	0.9996	0.0000	0.9991	0.0000	0.9989	0.0000
disturbance	0.0004	0.0012	0.5584	0.0072	0.7467	0.0072		

Table S36. Error matrix for the Global Forest Change map using grid reference data in 2014

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9961	0.0016	0.9996	0.0000	0.9984	0.0000	0.9989	0.0000
disturbance	0.0004	0.0018	0.5318	0.0058	0.8030	0.0058		

Table S37. Error matrix for the Global Forest Change map using grid reference data in 2015

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9955	0.0015	0.9993	0.0000	0.9985	0.0000	0.9989	0.0000
disturbance	0.0007	0.0023	0.6097	0.0053	0.7607	0.0050		

Table S38. Error matrix for the Global Forest Change map using grid reference data in 2016

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9950	0.0011	0.9987	0.0000	0.9989	0.0000	0.9989	0.0000
disturbance	0.0013	0.0026	0.6932	0.0052	0.6557	0.0051		

Table S39. Error matrix for the Global Forest Change map using grid reference data in 2017

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9953	0.0012	0.9988	0.0000	0.9988	0.0000	0.9989	0.0000
disturbance	0.0012	0.0023	0.6626	0.0058	0.6599	0.0056		

Supplementary 4: Error matrices for the local disturbance map using grid reference data

Table S40. Error matrix for the local disturbance map using grid reference data in 2013

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9973	0.0005	0.9995	0.0000	0.9995	0.0000	0.9989	0.0000
disturbance	0.0005	0.0016	0.7638	0.0062	0.7495	0.0062		

Table S41. Error matrix for the local disturbance map using grid reference data in 2014

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9959	0.0007	0.9993	0.0000	0.9993	0.0000	0.9989	0.0000
disturbance	0.0007	0.0027	0.7862	0.0048	0.7869	0.0048		

Table S42. Error matrix for the local disturbance map using grid reference data in 2015

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9954	0.0010	0.9992	0.0000	0.9990	0.0000	0.9989	0.0000
disturbance	0.0008	0.0028	0.7338	0.0050	0.7841	0.0045		

Table S43. Error matrix for the local disturbance map using grid reference data in 2016

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9958	0.0013	0.9995	0.0000	0.9987	0.0000	0.9989	0.0000
disturbance	0.0005	0.0024	0.6540	0.0054	0.8237	0.0046		

Table S44. Error matrix for the local disturbance map using grid reference data in 2017

	no-disturbance	disturbance	PA	CI	UA	CI	OA	CI
no-disturbance	0.9958	0.0011	0.9993	0.0000	0.9989	0.0000	0.9989	0.0000
disturbance	0.0007	0.0024	0.6933	0.0057	0.7769	0.0052		