Supplementary material for:

Rapid satellite monitoring reveals complexity of tropical tree cover loss drivers at fine scale

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Supplementary table 1: Confusion matrices of the tree cover loss driver classifications per region without area-adjustment, based on a stratified sample of 50 points per class in each region. Rows show the mapped class and columns show the reference class.

Amazon forest:

	Agric.	Mining	Road dev.	Sel. Log.	Wildf.	Flood.	Oth. nat.	Area weight
Agriculture	42	0	0	0	5	2	1	0.387
Mining	3	41	1	1	0	3	1	0.014
Road development	0	0	50	0	0	0	0	0.011
Selective logging	0	0	1	44	3	0	2	0.015
Wildfire	2	0	0	0	48	0	0	0.485
Flooding	0	0	0	0	10	32	8	0.010
Other natural	3	0	0	2	10	0	35	0.078

Congo Basin forest:

	Agric.	Mining	Road dev.	Sel. Log.	Wildf.	Flood.	Oth. nat.	Area weight
Agriculture	49	0	0	0	0	0	1	0.829
Mining	4	43	0	0	0	1	2	0.012
Road development	3	0	44	2	0	0	1	0.028
Selective logging	0	0	1	49	0	0	0	0.036
Wildfire	4	0	0	0	44	1	1	0.014
Flooding	4	0	0	0	14	30	2	0.007
Other natural	2	0	1	8	1	1	37	0.073

Southeast Asian forest:

	Agric.	Mining	Road dev.	Sel. Log.	Wildf.	Flood.	Oth. nat.	Area weight
Agriculture	50	0	0	0	0	0	0	0.761
Mining	7	34	5	0	0	3	1	0.030
Road development	0	0	47	1	0	0	2	0.036
Selective logging	0	0	3	47	0	0	0	0.060
Wildfire	4	0	0	3	34	0	9	0.014
Flooding	3	0	0	0	2	44	1	0.008
Other natural	3	0	1	4	3	4	35	0.089

Supplementary table 2: Overview of area-adjusted accuracies of the tree cover loss driver classifications per region.

Amazon forest:

	Agric.	Mining	Road dev.	Sel. Log.	Wildfire	Flooding	Other nat.	
User's acc.	0.840	0.820	1.000	0.880	0.960	0.640	0.700	
Producer's acc.	0.929	1.000	0.950	0.795	0.891	0.282	0.842	
F1 score	0.882	0.901	0.974	0.835	0.924	0.391	0.765	
Macro-F1 score								**0.810**
Overall acc.								**0.887**

Congo Basin forest:

	Agric.	Mining	Road dev.	Sel. Log.	Wildfire	Flooding	Other nat.	
User's acc.	0.980	0.860	0.880	0.980	0.880	0.600	0.740	
Producer's acc.	0.991	1.000	0.919	0.734	0.783	0.680	0.748	
F1 score	0.986	0.925	0.899	0.839	0.829	0.637	0.744	
Macro-F1 score								**0.837**
Overall acc.								**0.953**

Southeast Asian forest:

	Agric.	Mining	Road dev.	Sel. Log.	Wildfire	Flooding	Other nat.	
User's acc.	1.000	0.680	0.940	0.940	0.680	0.880	0.700	
Producer's acc.	0.986	1.000	0.802	0.867	0.627	0.441	0.930	
F1 score	0.993	0.810	0.865	0.902	0.653	0.588	0.799	
Macro-F1 score								**0.801**
Overall acc.								**0.951**

Supplementary table 3: Annual area (ha) of tree cover loss drivers across the three tropical regions from 2022–2024.

	Amazon forest:			Congo Basin forest:			Southeas Asian forest:		
	2022	2023	2024	2022	2023	2024	2022	2023	2024
Large-scale agr.	1.417.324	836.666	972.227	89.720	112.398	140.343	253.359	573.687	449.432
Small-scale agr.	439.010	455.933	523.937	392.446	433.407	529.666	210.241	347.299	300.387
Mining	53.228	59.318	58.123	6.783	8.274	9.409	21.193	35.756	27.838
Road development	51.455	43.360	42.993	19.085	16.400	20.935	34.766	35.679	29.424
Selective logging	65.712	53.909	59.363	24.186	21.909	27.395	63.645	56.954	46.632
Wildfire	626.540	903.476	4.292.694	6.809	7.843	13.979	22.433	9.262	7.046
Flooding	25.314	47.150	51.070	3.095	3.796	8.238	5.435	8.143	8.316
Other natural	194.768	306.462	431.996	44.474	44.729	60.888	91.248	83.139	75.588