

1 *Supplementary Materials*

2 **Monitoring wildfires in the northeastern Peruvian**
3 **Amazon using Landsat-8 and Sentinel-2 imagery in**
4 **the GEE platform**

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19 **Table S1.** Scripts developed for the classification of burnt areas (BA) in the
20 Amazonas department.

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Collections	Link to the scripts
Amazon BA, Sentinel-2 and Landsat-8, 2017-2019	https://github.com/Efrain73/BurntArea_S2-Landsat

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23 **Table S2.** Statistical validation of burnt areas for the Landsat-8 product in 2017.

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Classification	Reference			User's Accuracy	Commission Error
	Burnt	Unburnt	Total		
Burnt	192	36	228	0.84	0.16
Unburnt	3	225	228	0.99	0.01
Total	195	261	456		
Producer's Accuracy	0.98	0.86			
Omission Error	0.02	0.14			

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35**Table S3.** Statistical validation of burnt areas for the Landsat-8 product in 2018.

Classification	Reference			User's Accuracy	Commission Error
	Burnt	Unburnt	Total		
Burnt	152	76	228	0.67	0.33
Unburnt	3	225	228	0.99	0.01
Total	155	301	456		
Producer's Accuracy	0.98	0.75			
Omission Error	0.02	0.25			

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39**Table S4.** Statistical validation of burnt areas for the Landsat-8 product in 2019.

Classification	Reference			User's Accuracy	Commission Error
	Burnt	Unburnt	Total		
Burnt	182	46	228	0.80	0.20
Unburnt	4	224	228	0.98	0.02
Total	186	270	456		
Producer's Accuracy	0.98	0.83			
Omission Error	0.02	0.17			

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44**Table S5.** Statistical validation of burnt areas for the Sentinel-2 product in 2017.

Classification	Reference			User's Accuracy	Commission Error
	Burnt	Unburnt	Total		
Burnt	217	11	228	0.95	0.05
Unburnt	3	225	228	0.99	0.01
Total	220	236	456		
Producer's Accuracy	0.99	0.95			
Omission Error	0.01	0.05			

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53**Table S6.** Statistical validation of burnt areas for the Sentinel-2 product in 2018.

Classification	Reference			User's Accuracy	Commission Error
	Burnt	Unburnt	Total		
Burnt	210	18	228	0.92	0.08
Unburnt	7	221	228	0.97	0.03
Total	217	239	456		
Producer's Accuracy	0.97	0.92			
Omission Error	0.03	0.08			

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62**Table S7.** Statistical validation of burnt areas for the Sentinel-2 product in 2019.

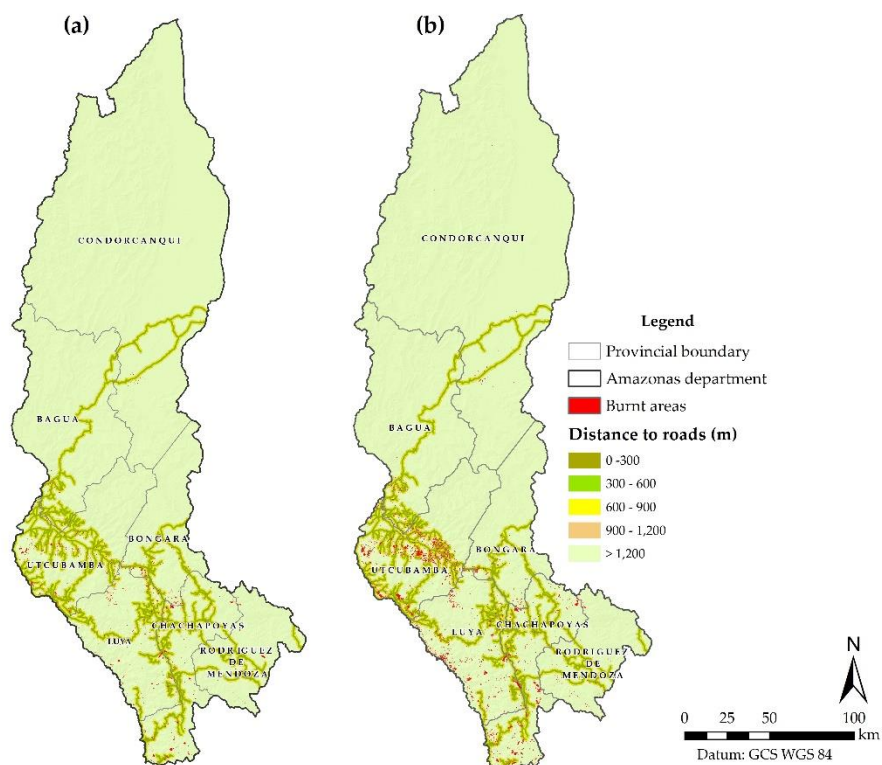
Classification	Reference			User's Accuracy	Commission Error
	Burnt	Unburnt	Total		
Burnt	226	2	228	0.99	0.01
Unburnt	5	223	228	0.98	0.02
Total	231	225	456		
Producer's Accuracy	0.98	0.99			
Omission Error	0.02	0.01			

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82**Table S8.** Analyses of the burnt areas spatial distribution with respect to slope and proximity to roads and populated areas for the Landsat-8 and Sentinel-2 products.

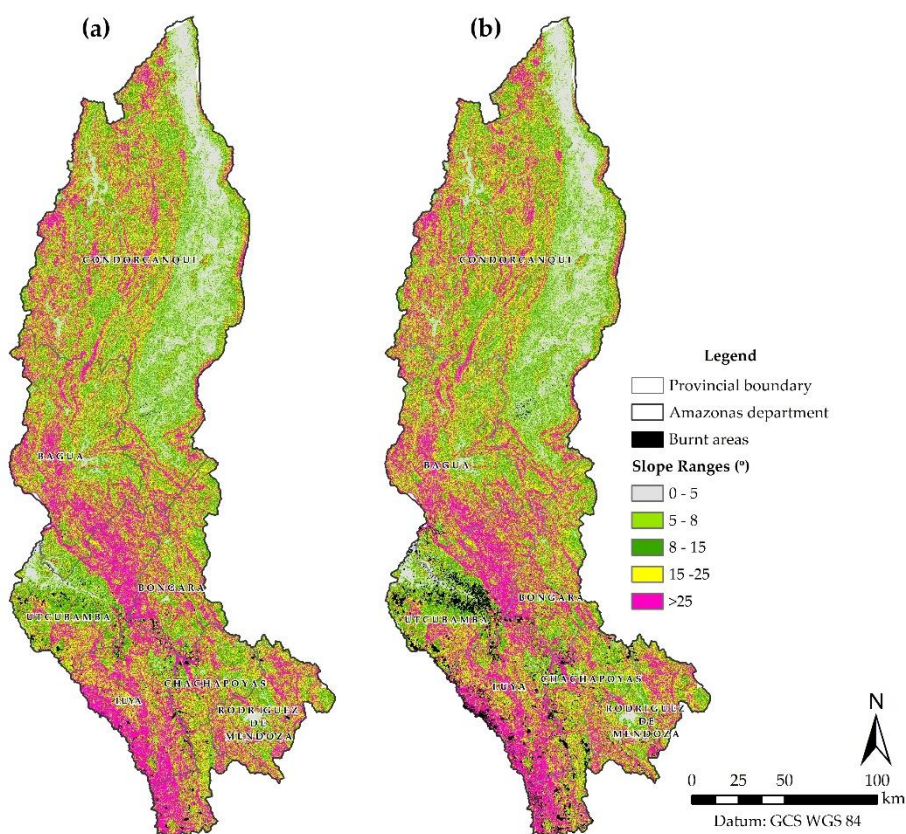
Ranking	Landsat-8		Sentinel-2	
	Area (km ²)	(%)	Area (km ²)	(%)
Slope (°)				
0 - 5	0.65	4.0	0.89	5.4
0 - 8	0.94	5.7	1.32	8.0
8 -15	3.61	22.0	4.45	26.9
15 - 25	4.76	29.0	4.40	26.6
> 25	6.44	39.3	5.49	33.2
Distance to roads (m)				
0 - 300	0.70	11.2	9.40	12.0
300 - 600	0.68	10.9	9.16	11.7
600 - 900	0.60	9.6	9.26	11.8
900 – 1,200	0.57	9.2	7.05	9.0
> 1,200	3.69	59.1	43.63	55.6
Distance to populated areas (m)				
0 - 400	0.30	0.9	0.59	0.9
400 - 800	0.88	2.7	1.25	1.9
1,200 – 1,400	0.99	3.0	1.82	2.7
1,400 – 1,600	1.27	3.9	2.31	3.4
> 1,600	29.49	89.5	61.23	91.1

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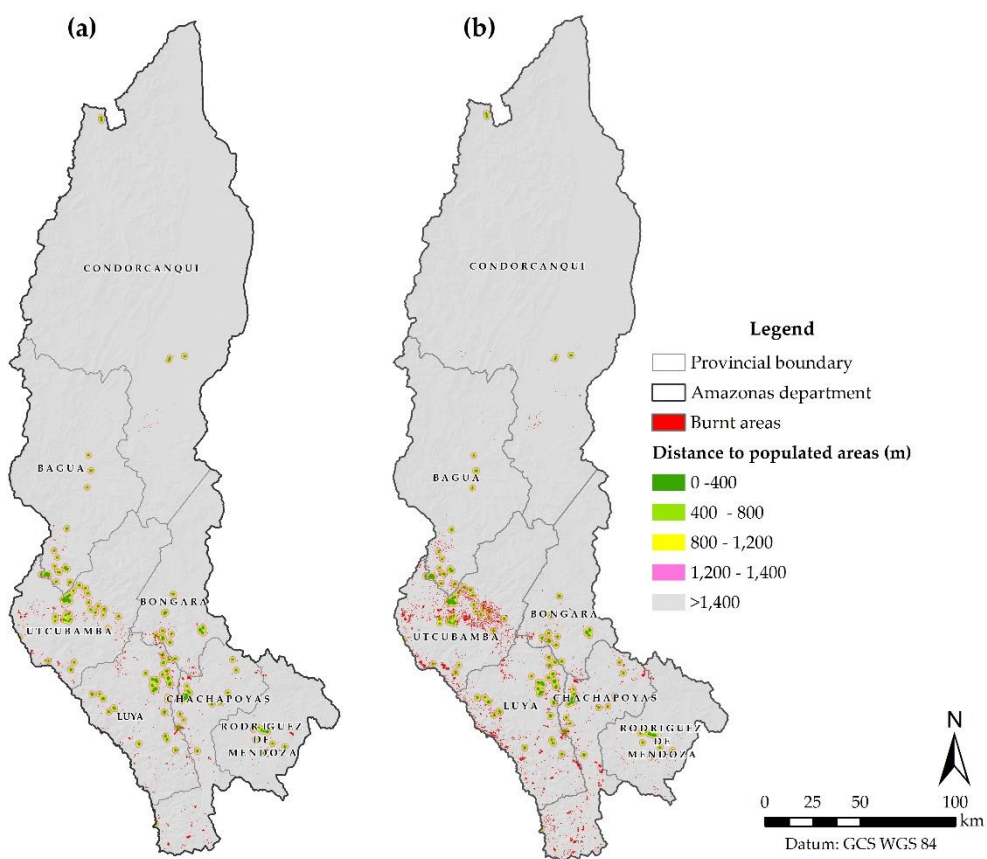
Figure S1. Maps of wildfires burn scars proximity to the road network; (a) BA resulting from Landsat-8; (b) BA resulting from Sentinel-2.



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Figure S2. Maps of wildfires burn scars superimposed on slope ranges; (a) BA resulting from Landsat-8; (b) BA resulting from Sentinel-2.

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Figure S3. Maps of wildfires burn scars proximity to populated areas; **(a)** BA resulting from Landsat-8; **(b)** BA resulting from Sentinel-2.