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# ANALYSIS OF FOREST COVER CHANGE AND ITS INFLUENCE ON SUSTAINABILITY INDICATORS IN ECUADORIAN AMAZON.

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# DEFORESTATION IN AMAZON REGION

Shows / Inside the Americas

## INSIDE THE AMERICAS

### Deforestation in Ecuador: The challenging task of regenerating forests



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### Amazon deforestation rose 17% in 'dire' 2020, data shows

After Brazil, the countries with the highest primary Amazon forest loss in 2020 were Bolivia, Peru and Colombia - which suffered its second-highest loss on record - followed by Venezuela and Ecuador, according to the report based on analysis of the data produced by the University of Maryland. "The primary cause of deforestation across the Amazon appears to be agriculture and cattle-related, ranging from larger-scale operations in Brazil to the accumulation of smaller-scale clearings throughout the western Amazon," Finer told the Thomson Reuters Foundation.

Reuters | Updated: 07-04-2021 21:43 IST | Created: 07-04-2021 21:31 IST



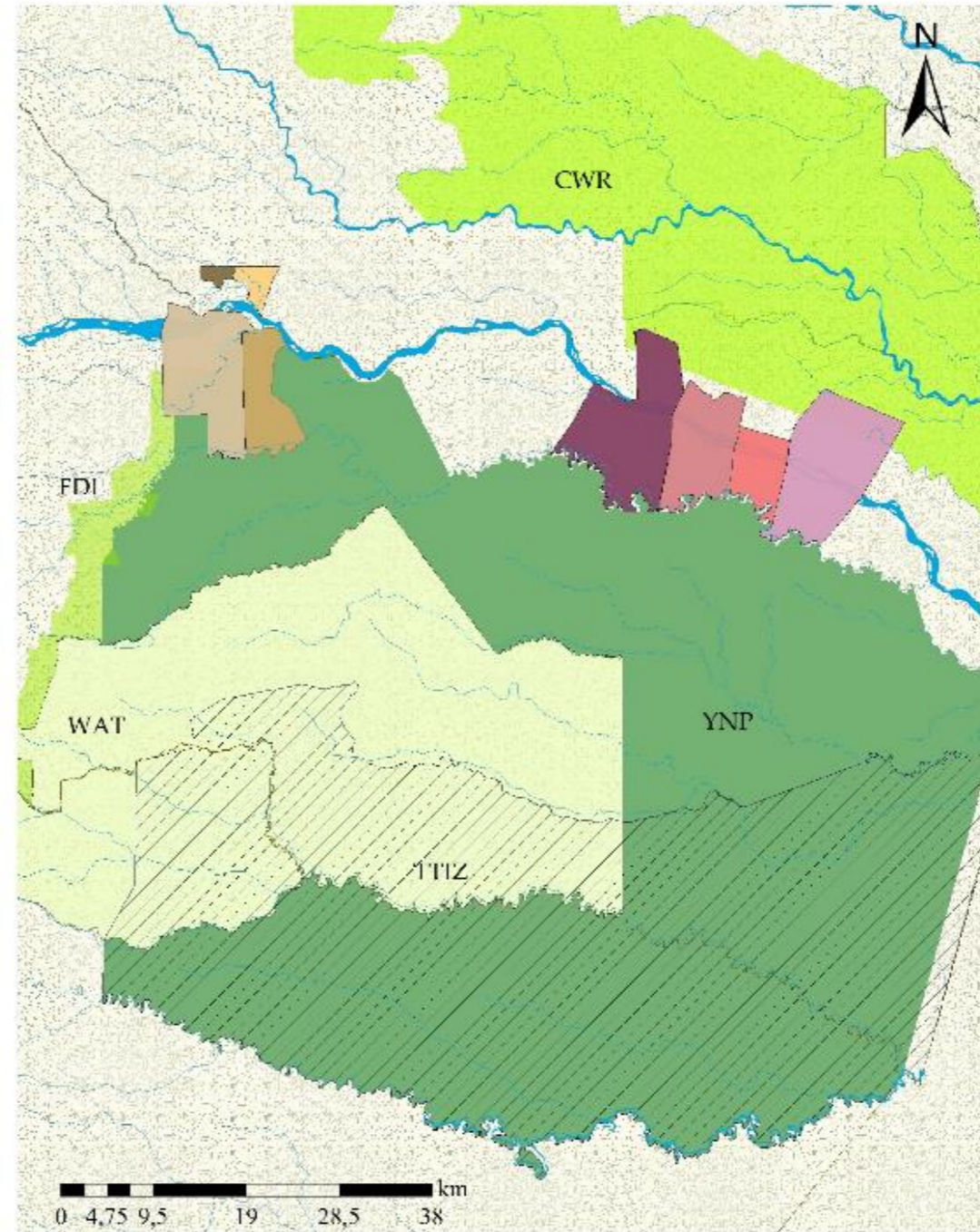
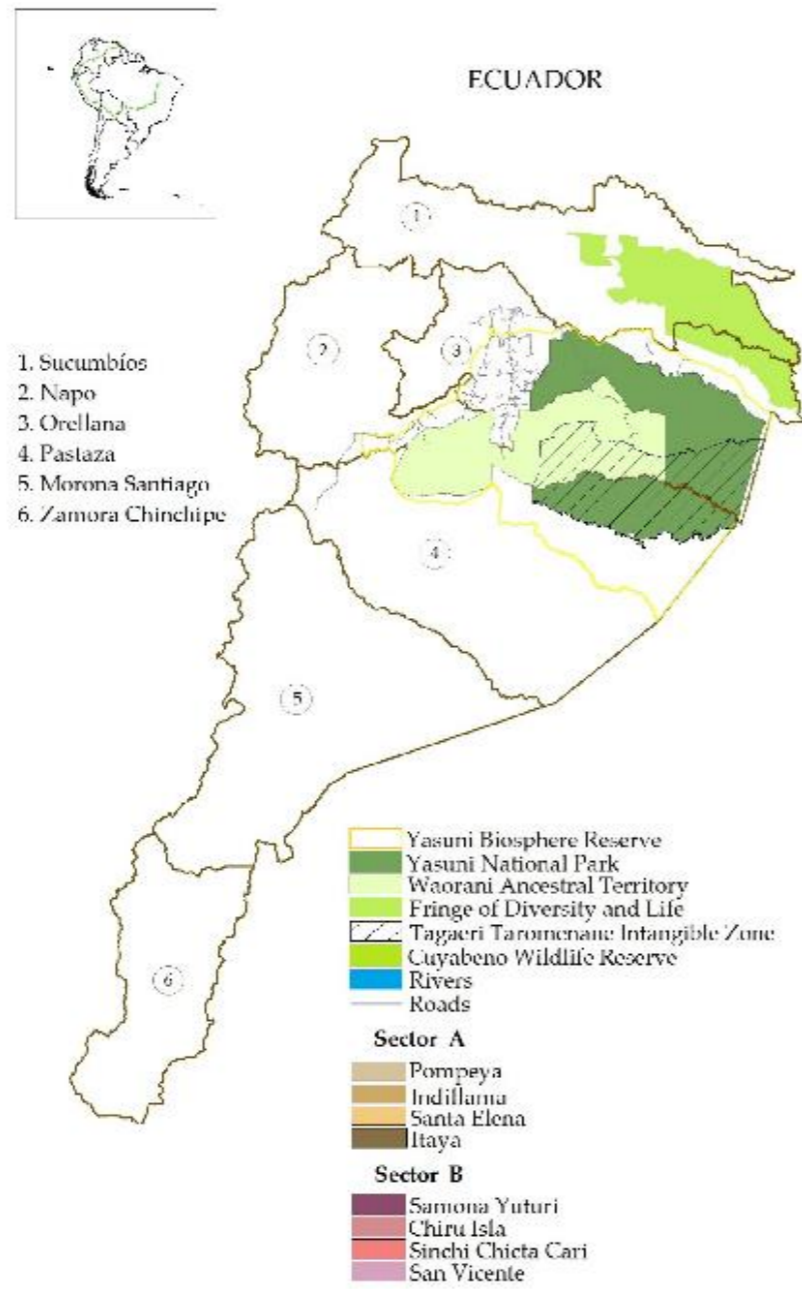
### Amazonian community launches Ecuador's first climate lawsuit

A group of indigenous Amazonian people are taking a local arm of one of China's biggest oil firms to court in Ecuador's first major climate change litigation case

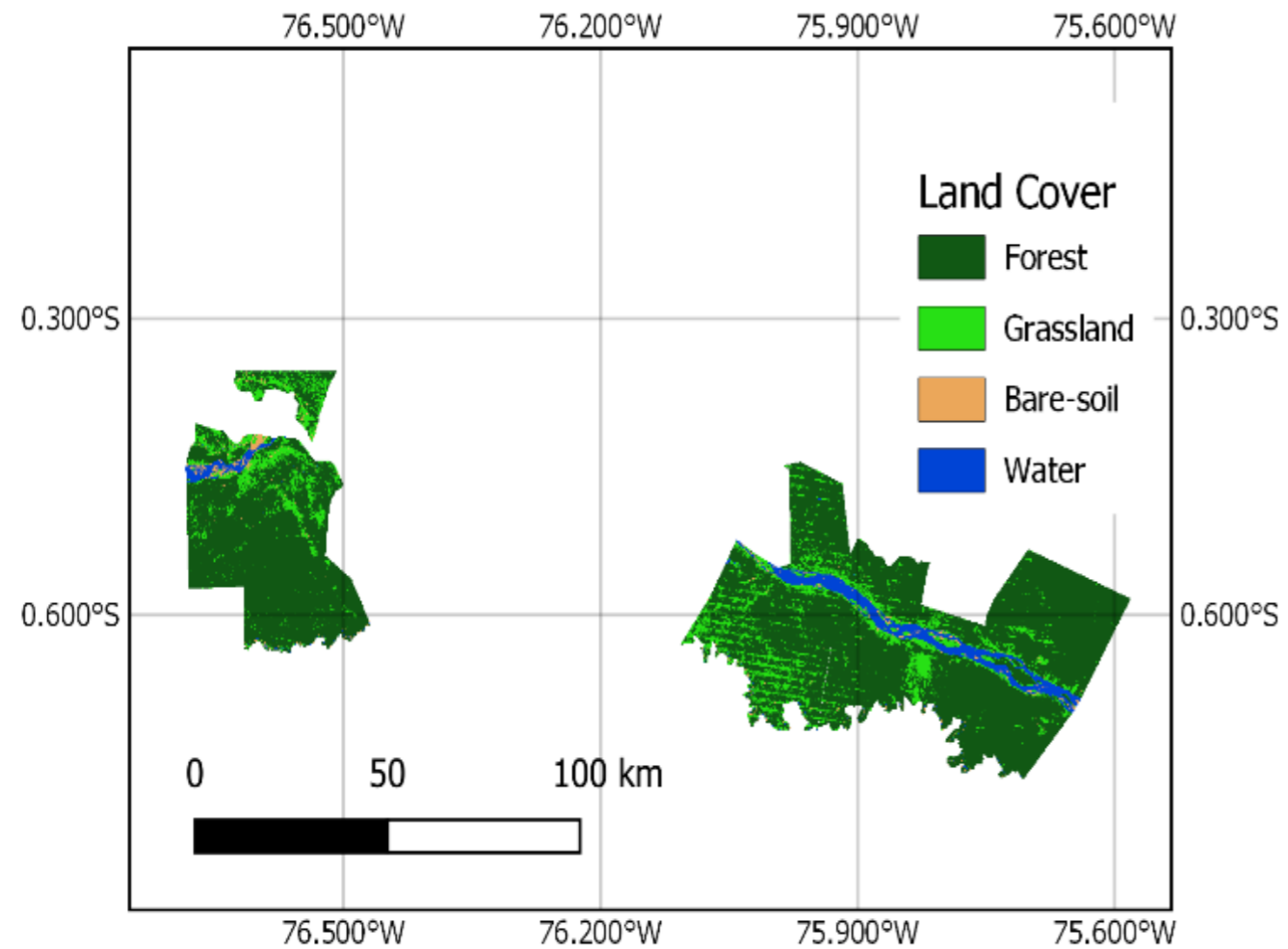
Isabella Kaminski March 1, 2021



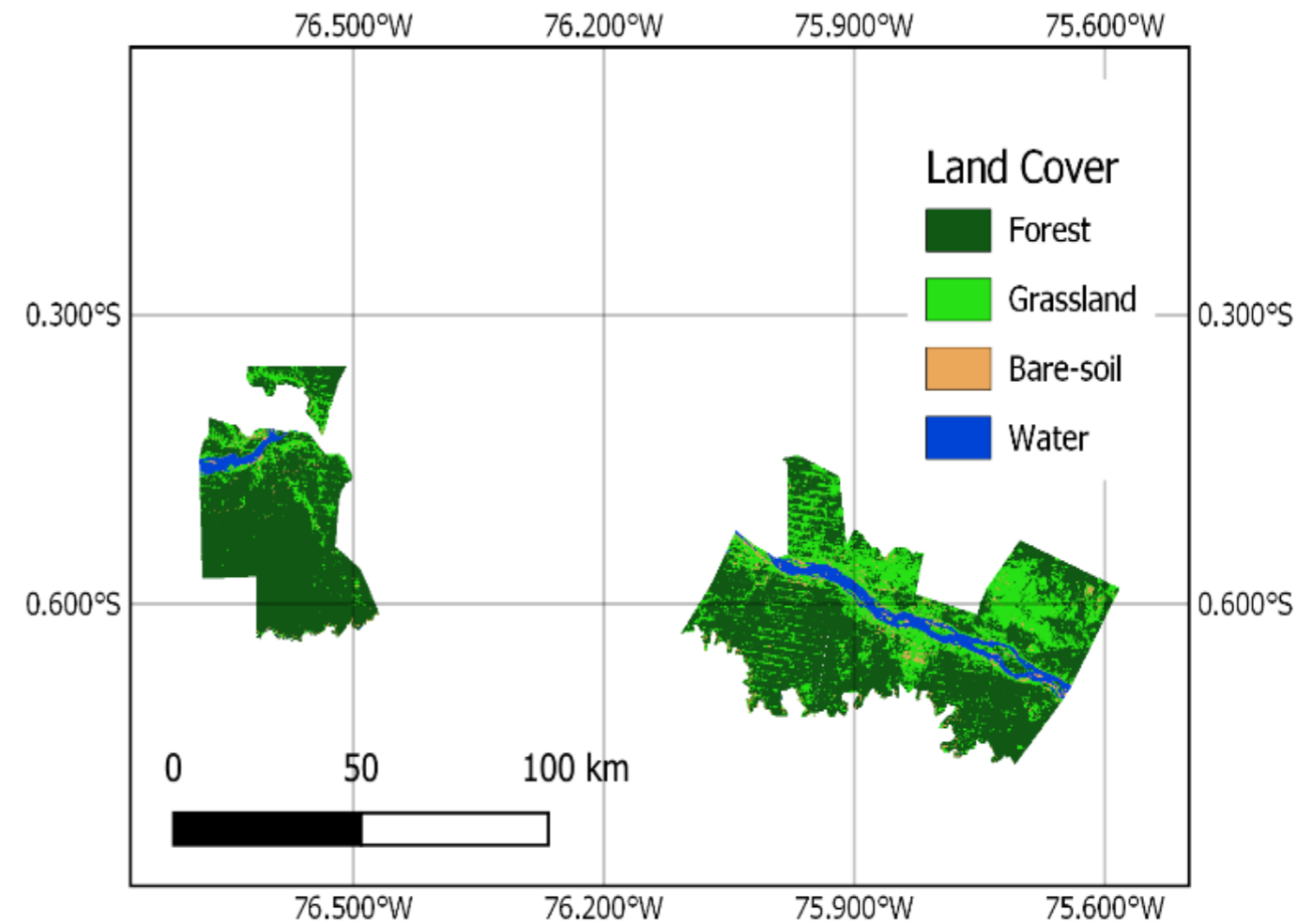
# STUDY AREA



# LAND COVER CLASSIFICATION



2013-2014



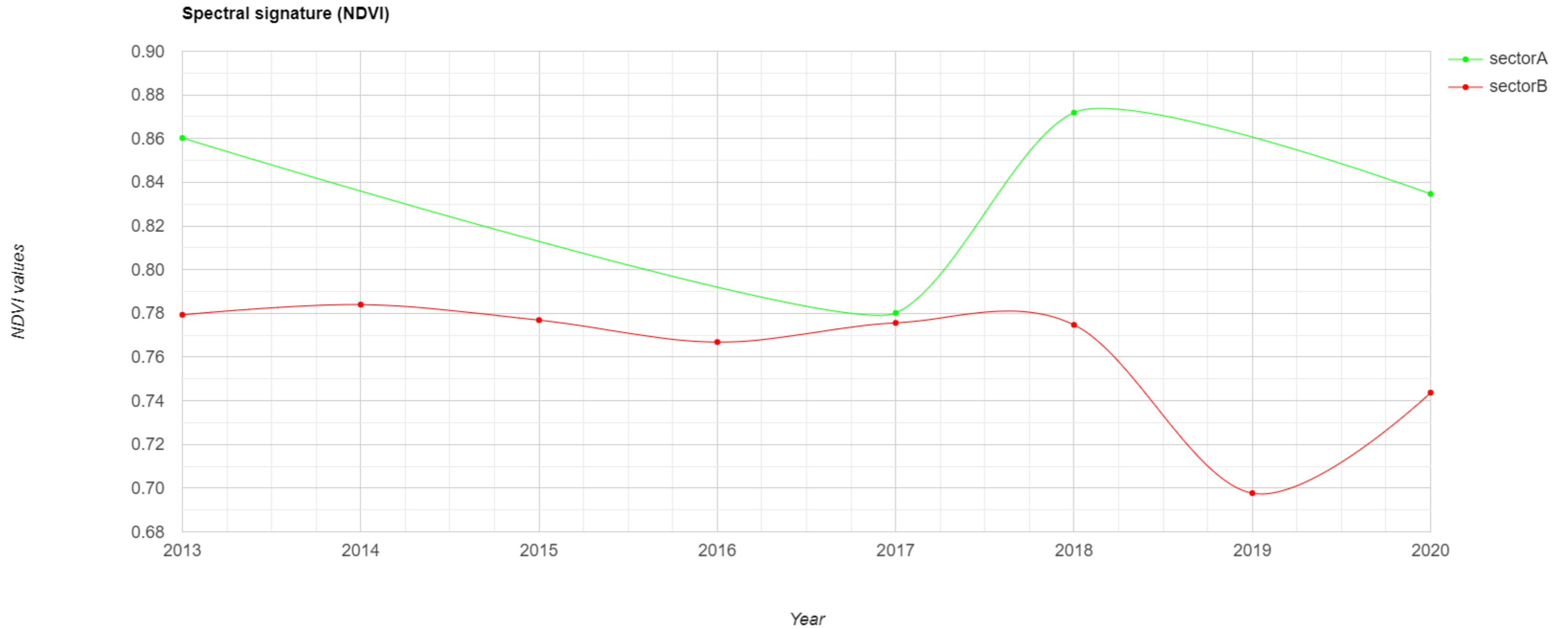
2019-2020

# CHANGE DETECTION

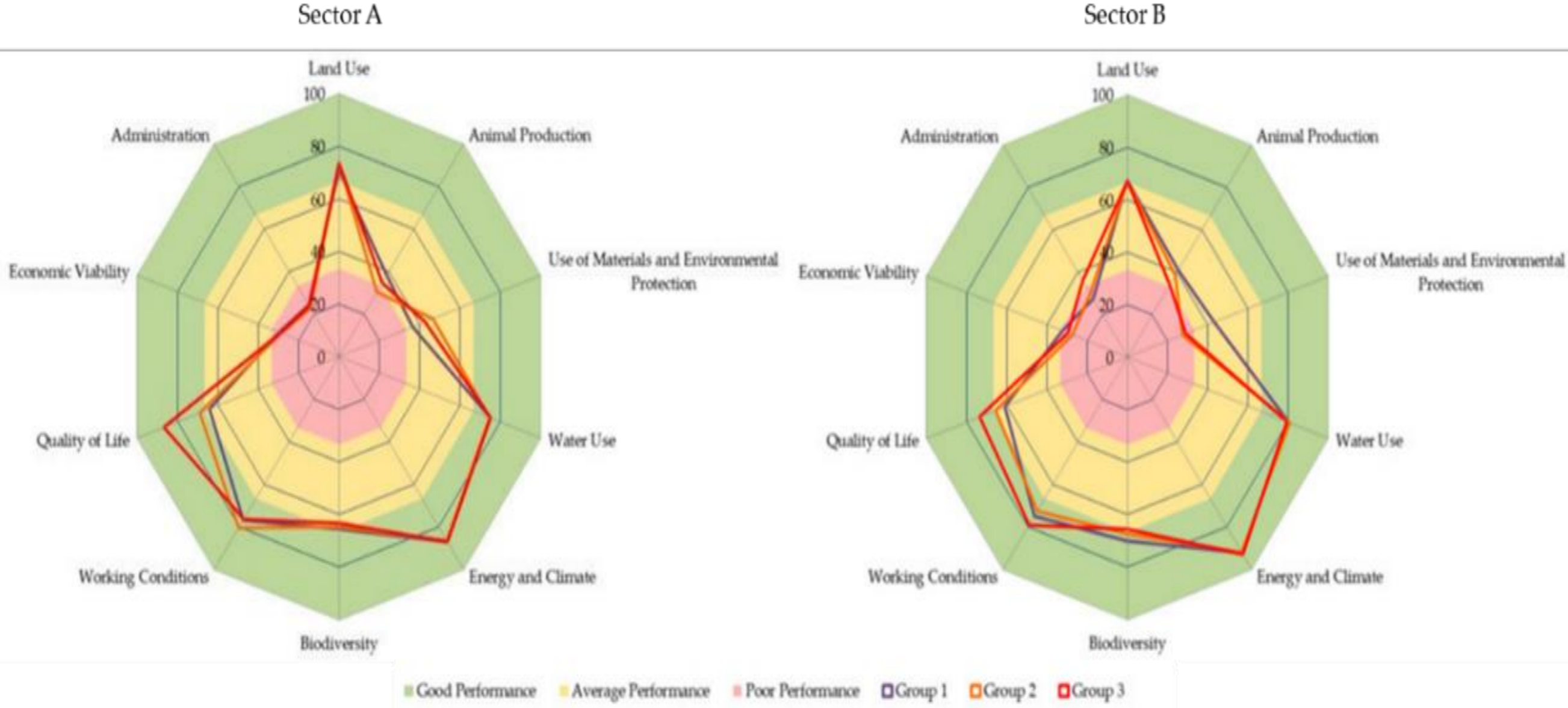
	2013 - 2014		2019 - 2020		
	Area (Km2)	Area (%)	Area (Km2)	Area (%)	Gain/ Loss (%)
<b>Forest</b>	1122.26	79.72	951.01	67.55	-12.16
<b>Grassland</b>	203.14	14.43	355.96	25.29	10.86
<b>Soil</b>	13.20	0.94	30.86	2.19	1.25
<b>Water</b>	69.19	4.91	69.95	4.97	0.05
<b>Total</b>	1407.78	100.00	1407.78	100.00	

2019 - 2020						
		Forest	Grassland	Soil	Water	Total
<b>2013-2014</b>	Forest	61.92	17.14	0.64	0.02	79.72
	Grassland	5.59	7.89	0.85	0.10	14.43
	Soil	0.04	0.23	0.59	0.08	0.94
	Water	0.01	0.03	0.11	4.77	4.91
	Total	67.55	25.29	2.19	4.97	100.00
	Gain	2.55	10.18	0.77	0.63	

# NDVI



# SUSTAINABILITY INDICATORS





# RELATIONSHIP BETWEEN NDVI AND SUSTAINABLE INDICATORS

	Coef	Std err	t	P
Land use	0.2949	0.029	10.054	0
Animal production	-0.0269	0.018	-1.534	0.151
Use of materials and environmental protection	0.3245	0.046	7.06	0
Water use	0.0059	0.026	0.226	0.825
Energy and climate	0.0197	0.028	0.71	0.491
Biodiversity	0.0412	0.016	2.643	0.021
Working conditions	0.2204	0.013	16.391	0
Quality of life	0.3308	0.036	9.238	0
Economic viability	0.0413	0.003	14.704	0
Administration of the chakra	-0.1596	0.039	-4.135	0.001
Global indicator of sustainability	0.1092	0.001	98.254	0

# CONCLUSION

- Loss of forest was observed in the study area.
- Increase in grasslands and soil.
- Some sustainability indicators of the Kichwa community are potentially influenced by NDVI variation