Maya

AI Pipeline Summary

The geospatial analysis conducted on fire risk, drought conditions, forest cover, land use, and vegetation changes over the selected region reveals significant trends and impacts following an intervention in 2022. Using various datasets, including the MODIS Burn Area, Palmer Drought Severity Index (PDSI), Hansen forest loss, Dynamic World land cover, GLAD Land Cover and Land Use Change, and NDVI from Sentinel-2 imagery, the findings provide a multi-faceted view of the region's environmental dynamics from 2000 to 2024.

Fire risk analysis shows a marked decrease in burned area coverage following the 2022 intervention. Before this intervention, 2019 had the highest burned area at 9.25%. Post-2022, there was a notable reduction, with only 0.51% burned in 2022 and none in 2023 or 2024, suggesting a potential positive impact of the intervention on fire occurrences. However, longer-term data is required to confirm these trends conclusively.

Drought analysis using PDSI data highlights a shift towards wetter conditions post-2022, with 2022 and 2024 categorized as 'Very wet.' This change indicates improved water availability and potential ecological benefits. This shift from earlier years, which experienced mild droughts, underscores the possible positive outcomes of the intervention on climatic conditions.

Forest cover analysis using the Hansen dataset shows a significant decrease in deforestation rates post-2022, with forest cover stabilizing at around 74% compared to a 22% decrease from 2000 to 2021. This suggests the intervention may have effectively curbed deforestation.

The Dynamic World dataset analysis indicates a stabilization of tree coverage post-2022, maintaining high levels above 96%. The consistent forest coverage following the intervention suggests its effectiveness in maintaining forest health.

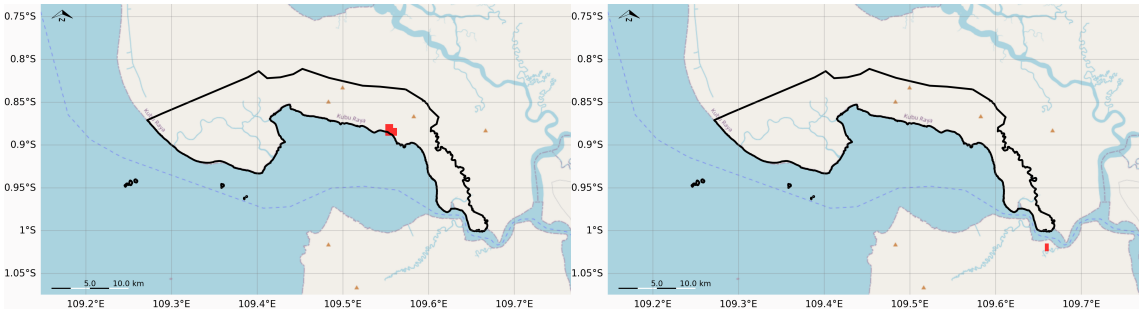
Vegetation analysis using NDVI reveals an increasing trend in dense vegetation coverage, which continued after the 2022 intervention. Dense vegetation coverage was high, reaching up to 99.08% by 2021, and remained stable post-intervention, reflecting successful vegetative health maintenance.

Overall, the datasets collectively suggest that the 2022 intervention had a positive impact on reducing fire occurrences, enhancing water availability, stabilizing forest cover, and maintaining vegetation health. Continuous monitoring and further studies are recommended to confirm these trends and understand long-term impacts.

Maya

Burned Area (MODIS)

Fire Risk Modis (2001 - 2024)



Aoi

Time Start	Time End	Burned Area %	Burned Area (ha)
This table was added to the appendix because the length of table exceeds 15 rows			

Buffered Aoi

Time Start	Time End	Burned Area %	Burned Area (ha)
This table was added to the appendix because the length of table exceeds 15 rows			

The analysis of fire risk and burned area coverage over the selected region, using the MODIS Burn Area dataset from NASA, provides insights into the trends observed over a span of 24 years, from 2001 to 2024. This dataset, with a spatial resolution of 500 meters, identifies burned areas based on changes in spectral signatures from satellite imagery. It is important to note that the dataset does not account for fire duration and severity, and values are interpreted as percentages.

The reported data indicate that over the period from 2001 to 2021, the average annual burned area percentage varied, with significant changes noted in certain years. The year 2019 saw the highest burned area coverage within this timeframe, with 9.25% of the area burned, equating to 2726.07 hectares. In contrast, certain years, such as 2003, 2008, 2010, and 2020, showed no recorded burned areas according to this dataset. Overall, the fire frequency, understood as the percentage of years with detected fires, was 66.67% for this period.

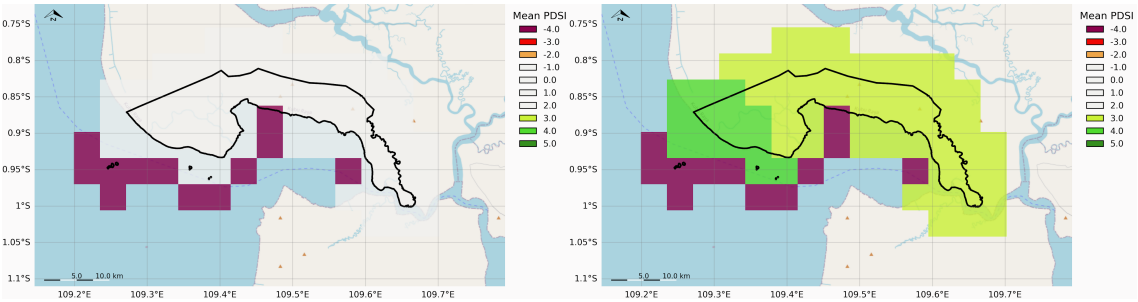
Following the intervention in 2022, the data from 2022 to 2024 indicate a noticeable change in fire activity. In 2022, 0.51% of the area was reported burned, while no burned

areas were recorded in 2023 and 2024. This suggests a potential reduction in fire occurrences post-intervention. However, the data for these years might still be limited given the short timeframe post-intervention, and further monitoring would be essential to confirm this trend. The maximum annual fire coverage recorded during these three years was 150.06 hectares in 2022.

The methodology employed in this analysis ensures removal of burn areas with uncertainty above 20%, contributing to the reliability of these findings. Despite the dataset's limitation in predicting fire danger or frequency, the observed data provide a basis for assessing the impact of interventions on fire occurrences in the region. Further studies may be needed to understand the underlying causes of changes in burned area coverage and to evaluate the long-term effectiveness of the intervention.

Drought Hazard (PDSI)

Drought Risk Pdsi (2000 - 2024)



Drought Risk Pdsi

Time Start	Time End	Mean PDSI
This table was added to the appendix because the length of table exceeds 15 rows		

The analysis of drought risk using the Palmer Drought Severity Index (PDSI) reveals notable variations in climatic conditions from the year 2000 through 2024. The dataset, derived from TerraClimate, provides a global perspective by utilizing high-resolution climatic data to monitor drought events. The spatial resolution of this data is approximately 4,638 meters, meaning that smaller variations are not captured within this dataset.

Upon examining the periods before and after the intervention in 2022, distinct differences are observed. From 2000 to 2021, the region experienced a range of climatic conditions predominantly characterized by mild droughts and slightly wet conditions. During these years, specific instances of moderate wet conditions were recorded, notably in 2010 and 2013. Meanwhile, severe drought conditions were notably absent, with the exception of a

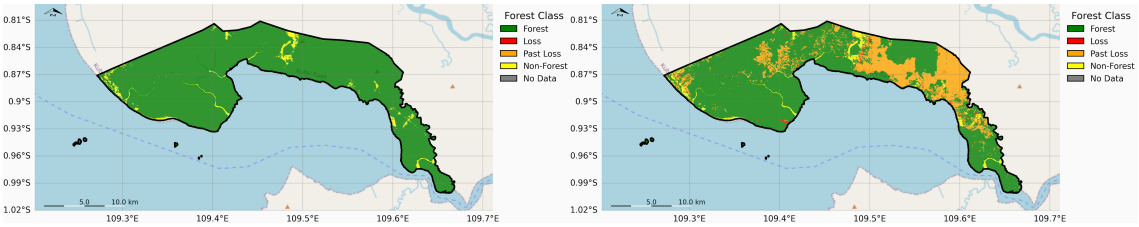
mild drought in 2011.

After the intervention in 2022, the climatic conditions shifted towards more favorable wet conditions. The years 2022 and 2024 are particularly noteworthy as they were categorized as 'Very wet,' indicating highly favorable conditions for water availability and potential ecological improvement. The year 2023 was categorized as 'Slightly wet,' maintaining a positive trend in water availability.

This shift towards wetter conditions post-2022 suggests an improvement in the climatic conditions that could facilitate various ecological and agricultural activities. However, it is important to note that the dataset does not capture long-term trends or finer spatial variations, which should be considered when making detailed environmental assessments.

Forest Cover (HANSEN)

Forest Cover Hansen (2000 - 2023)



Forest Cover Hansen

Time Start	Time End	Forest	Loss	Past Loss	Non-Forest	No Data	Deforestation Rate
This table was added to the appendix because the length of table exceeds 15 rows							

The analysis utilizes the Hansen forest loss dataset, which provides data on global tree cover from 2000 to the present, derived from Landsat imagery with a 30-meter resolution. This dataset identifies tree cover loss by comparing yearly forest cover using advanced classification algorithms. The current analysis focuses on assessing forest cover and deforestation rates in a specified area, with a particular emphasis on evaluating the impact of a program intervention that commenced in 2022.

Prior to the intervention period (2000-2021), the mean forest coverage was observed to be 86.69%. During this phase, the forest showed a slight annual decrease with a mean deforestation rate of 1.1%. The maximum deforestation rate recorded during this period was

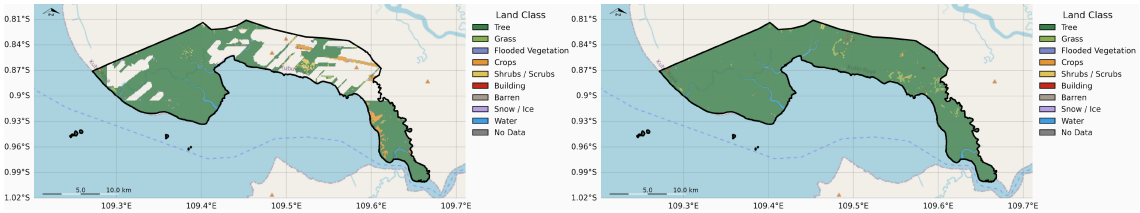
5.39%, indicating a very high deforestation rate in certain years. The percentage of the area classified as forest decreased from 96.39% in 2000 to 74.35% in 2021, reflecting a significant decline in forest cover over the two decades before the intervention.

Following the intervention in 2022, the forest cover was recorded at 74.26%, with a deforestation rate of 0.12% in 2022 and 0.81% in 2023. These figures suggest a reduction in the deforestation rate after the intervention began, with forest cover stabilizing somewhat compared to the prior years' trends. The forest cover continued to show a slight decrease, with a coverage of 73.66% in 2023, although the deforestation rate remained comparatively lower than the maximum rates observed before the intervention.

It is important to note that the analysis does not extend beyond 2023, and thus the full impact of the intervention cannot be completely assessed as per the initial request of evaluating until 2024. However, the available data from 2022 and 2023 indicates a positive trend of reduced deforestation rates compared to the pre-intervention period.

Land Cover (Dynamic World)

Land Cover Dynamic World (2016 - 2024)



Land Cover Dynamic World

Time Start	Time End	Tree	Grass	Flooded Vegetation	Crops	Shrubs / Scrubs	Building	Barren	Snow / Ice	Water	No Data
2016-01-01T00:00:00Z	2016-12-31T23:59:59Z	62.42	0.73	0.18	2.25	0.95	0.1	0.02	0.22	0.95	32.18
2017-01-01T00:00:	2017-12-31T23:59:59	85.05	3.37	0.21	2.95	0.17	0.1	0.01	0.16	1.16	6.82

00Z	Z										
2018-01-01T00:00:00Z	2018-12-31T23:59:59Z	94.63	3.26	0.25	0.16	0.26	0.14	0.01	0.0	1.3	0.0
2019-01-01T00:00:00Z	2019-12-31T23:59:59Z	96.57	1.74	0.08	0.12	0.1	0.13	0.0	0.0	1.26	0.0
2020-01-01T00:00:00Z	2020-12-31T23:59:59Z	92.86	1.57	0.12	3.32	0.72	0.12	0.0	0.03	1.14	0.12
2021-01-01T00:00:00Z	2021-12-31T23:59:59Z	97.08	0.99	0.08	0.05	0.37	0.12	0.0	0.0	1.32	0.0
2022-01-01T00:00:00Z	2022-12-31T23:59:59Z	96.48	1.33	0.1	0.04	0.22	0.1	0.0	0.0	1.38	0.33
2023-01-01T00:00:00Z	2023-12-31T23:59:59Z	96.16	1.5	0.12	0.09	0.56	0.13	0.0	0.0	1.44	0.0
2024-01-01T00:00:00Z	2024-12-31T23:59:59Z	96.58	1.37	0.11	0.21	0.24	0.11	0.0	0.0	1.38	0.0

The analysis focuses on land cover changes over time using the Dynamic World dataset. The dataset provides near-real-time land cover classification based on Sentinel-2 satellite images, employing a deep learning model for classification. It has a high spatial resolution of 10 meters, which means the smallest visible unit is a 10m x 10m area. This dataset uses nine

land cover classes, including Trees, Grass, Flooded Vegetation, Crops, Shrubs/Scrubs, Buildings, Barren, Snow/Ice, and Water.

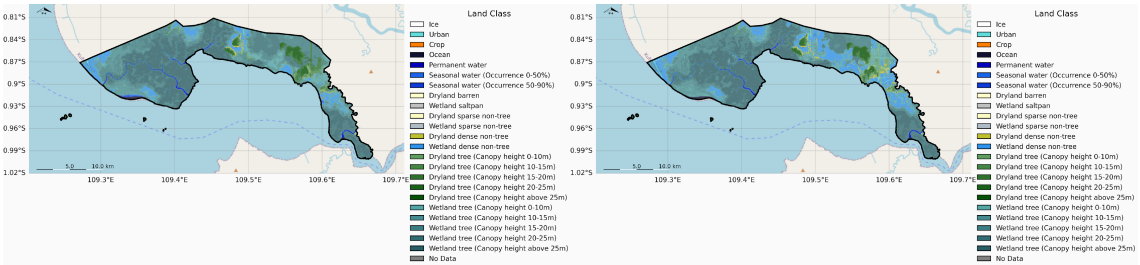
In examining the land cover changes, the analysis specifically focuses on forest coverage, represented by the "Tree" class, over the years 2016 to 2024. Notably, an intervention occurred in 2022, making it a pivotal year for analysis. Prior to this intervention, from 2017 to 2021, the forest coverage consistently increased from 85.05% in 2017 to a peak of 97.08% in 2021. This period saw a significant and steady rise in tree coverage.

Following the intervention in 2022, forest coverage slightly decreased to 96.48%, then marginally varied around this level, with 96.16% in 2023 and a slight increase back to 96.58% in 2024. Overall, the data suggests a stabilization of forest coverage following the intervention, with minimal fluctuations.

Across the entire period analyzed, forest coverage showed an overall increase of 34.16% from 2016 to 2024, excluding uncertain data from 2016 due to incomplete data availability. The analysis highlights that trees dominated the land cover throughout, with an average coverage across the analyzed years at 90.87%. This suggests that the intervention may have contributed to maintaining high levels of forest coverage post-2022, although the increase observed prior to 2022 indicates a trend towards greater forest coverage that began earlier.

Landcover (GLAD - 24 Classes)

Land Cover Glad 24 (2000 - 2020)



Land Cover Glad 24

Time Start	Time End	Ice	Urban	Crop	Ocean	Permanent water	Seasonal water	Seasonal water	Dryland barren	Wetland saltpan	Dryland sparse non-tree	Wetland sparse non-tree	Dryland dense non-tree	Wetland dense non-tree	Dryland tree (C	Dryland tree (C	Dryland tree (C	Dryland tree (C	Dryland tree (C	Wetland tree (C	Wetland tree (C	Wetland tree (C	Wetland tree (C	No Data

						er	(Occurrence 0-50%)	(Occurrence 50-90%)			non-tree	non-tree	non-tree	non-tree	anopy height 0-10m)	anopy height 10-15m)	anopy height 15-20m)	anopy height 20-25m)	anopy height above 25m)	anopy height 0-10m)	anopy height 10-15m)	anopy height 15-20m)	anopy height 20-25m)	anopy height above 25m)	
2000-01-01T00:00:00Z	2000-12-31T23:59:59Z	0.0	0.08	0.02	1.12	0.59	0.46	0.67	0.0	0.0	0.0	0.0	0.6	7.54	1.14	1.41	2.09	1.47	1.54	8.26	12.03	18.78	20.4	21.8	0.0
2005-01-01T00:00:00Z	2005-12-31T23:59:59Z	0.0	0.15	0.01	1.12	0.67	0.31	0.53	0.0	0.0	0.0	0.0	0.63	7.85	1.21	1.5	2.2	1.27	1.43	8.8	13.22	19.02	18.85	21.24	0.0

2010-01-01T00:00:00Z	2010-12-31T23:59:59Z	0.0	0.18	0.0	1.12	0.65	0.23	0.55	0.0	0.0	0.0	0.01	0.72	8.27	1.33	1.5	2.14	1.08	1.48	9.33	14.0	21.21	17.68	18.53	0.0
2015-01-01T00:00:00Z	2015-12-31T23:59:59Z	0.0	0.44	0.0	1.12	0.54	0.36	0.72	0.0	0.0	0.0	0.0	1.95	10.87	1.72	0.97	1.02	1.01	1.45	10.45	12.09	17.32	17.2	20.78	0.0
2020-01-01T00:00:00	2020-12-31T23:59:59Z	0.0	0.69	0.0	1.12	0.5	0.37	0.59	0.0	0.01	0.0	0.0	1.42	13.69	2.33	0.96	0.9	0.89	1.54	9.99	9.63	14.84	18.49	22.02	0.0

00Z

The analysis of the GLAD Global Land Cover and Land Use Change dataset, which spans from 2000 to 2020, provides insights into the changes in land cover over a 20-year period. This dataset, developed by the Global Land Analysis and Discovery laboratory at the University of Maryland, employs advanced remote sensing techniques and machine learning algorithms to quantify changes in forest extent, cropland, built-up lands, surface water, and snow and ice extent. The dataset features a 30-meter spatial resolution and utilizes metrics derived from Landsat imagery, ensuring detailed and accurate land cover and use classifications.

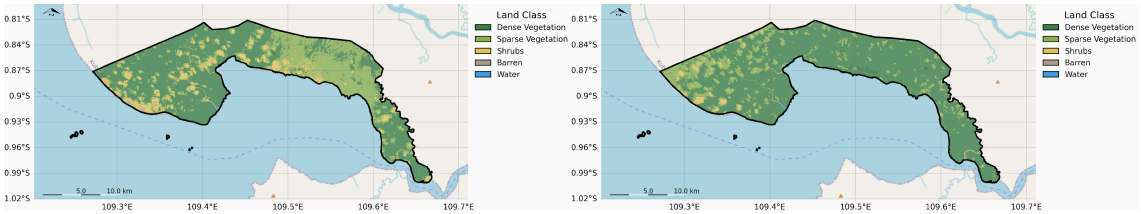
Throughout the period from 2000 to 2020, the analysis reveals several significant trends in land cover change. The 'Wetland tree (Canopy height above 25m)' class emerged as the major land cover type, indicating a prevalence of mature wetland forests in the study area. The analysis identified a mean tree height gain of 10.3 meters for areas of forest gain and a mean tree height loss of 14.34 meters for areas of forest loss. Additionally, forest regeneration was detected over an area of 5,867.01 hectares, while forest degradation was identified over 5,254.38 hectares. Moreover, forest loss was observed over an area of 3,719.61 hectares, and forest gain was detected over 717.3 hectares.

The analysis also highlights the most common land cover transitions. The most frequent change involved the transition within the class 'Wetland tree (Canopy height above 25m)', followed by transitions within 'Wetland tree (Canopy height 20-25m)' and 'Wetland tree (Canopy height 15-20m)'. These transitions suggest dynamic changes in canopy height within wetland tree areas.

The dataset's methodology includes the use of GEDI space-borne lidar for mapping tree height and Open Street Maps for built-up areas, enhancing the dataset's precision. Validation through stratified random sampling and the use of Google Earth and MODIS data reinforce the scientific integrity and robustness of the dataset. However, it is important to note that the dataset does not cover the period after 2020, hence any evaluation of impact due to an intervention in 2022 is not possible with the current data.

NDVI (Sentinel)

Ndvi Sentinel (2016-01 - 2024-10)



The analysis was conducted using Sentinel-2 imagery, which is part of the European Union's Copernicus program, providing high-resolution optical data for monitoring land and coastal areas. This analysis specifically employed the Normalized Difference Vegetation Index (NDVI) to assess changes in vegetation cover over time. The NDVI values range from -1.0 to 1.0, with higher values indicating denser vegetation. The NDVI is calculated using the Near-Infrared (NIR) and Red bands of satellite images, and the data from each year was averaged using median values to mitigate the impact of anomalies.

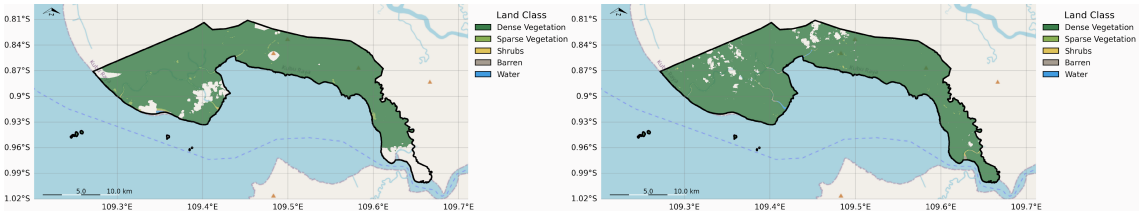
The area under analysis encompasses approximately 29,462 hectares, with the data spanning from 2016 to 2024. However, certain timeframes within the dataset are subject to data uncertainty, specifically the periods from October to December 2016, January to March 2017, January to March 2022, October to December 2022, January to March 2023, and January to March 2024. These timeframes have been excluded from the analysis due to potential data discontinuity caused by missing data beyond 10 percent.

Prior to the intervention in 2022, the NDVI analysis indicated a variation in dense vegetation coverage from 0 to 76.84 percent in the initial year of analysis, with sparse vegetation ranging from 0 to 32.97 percent. By the end of the pre-intervention period in 2021, the dense vegetation coverage exhibited an increase, ranging from 15.44 to 95.87 percent, while sparse vegetation decreased to a range of 3.27 to 18.22 percent. This suggests a trend towards increasing dense vegetation coverage over time, while sparse vegetation coverage was gradually declining.

Following the intervention in 2022, the data shows a continued trend of increasing dense vegetation and decreased sparse vegetation coverage. However, due to the identified periods of data uncertainty in 2022 and 2023, a full evaluation of the post-intervention impact is limited. Nonetheless, the available data indicates that the intervention may have contributed to sustaining or enhancing the observed trend of vegetation densification. Further analysis with complete and uninterrupted data would be required to ascertain the full impact of the intervention.

NDVI (Landsat)

Ndvi Landsat (1999-01 - 2024-10)



The analysis conducted using the Landsat Collection 2 Tier 1 Level 2 32-Day NDVI Composite focused on evaluating the vegetation changes over an extensive region in Indonesia, covering an area of approximately 29,461.5 hectares. The analysis spans from the first quarter of 1999 to the fourth quarter of 2024. However, certain time frames were identified as having uncertain data due to missing inputs, and these have been excluded from the evaluation to maintain accuracy.

Prior to 2022, the data indicates a wide variation in dense vegetation coverage. The range of dense vegetation coverage in the initial year, 1999, was observed to be between 14.75% and 88.6%. By the end of 2021, this range had dramatically increased, with dense vegetation coverage spanning from 95.09% to 99.08%. Sparse vegetation coverage, in contrast, was relatively low during the same periods. In 1999, sparse vegetation ranged from 0.16% to 1.56%, and by 2021, it was slightly reduced to a range from 0.35% to 0.54%. These figures suggest a significant increase in dense vegetation coverage over the years leading up to the intervention in 2022.

Following the intervention in 2022, the data reflects a continuation of high dense vegetation coverage. In the final year of analysis, 2024, dense vegetation still maintained high coverage levels similar to 2021, although specific annual data post-2021 is not provided in the summary. Sparse vegetation percentages remained low, indicating minimal change in land use or degradation that would increase sparse vegetation. The analysis suggests that the intervention did not negatively impact the dense vegetation coverage, and the area remained predominantly vegetated.

Overall, the data illustrates a positive trajectory in dense vegetation coverage before the intervention, which continued to be maintained after the intervention period beginning in 2022. This sustained high level of dense vegetation indicates successful maintenance of the region's vegetative health post-intervention, with negligible increase in sparse vegetation. The reliance on NDVI as a tool for assessing vegetation underscores the importance of considering its limitations, such as sensitivity to soil reflectance and atmospheric conditions, which should be accounted for in comprehensive vegetation monitoring.

Appendix

Aoi

Time Start	Time End	Burned Area %	Burned Area (ha)
2001-01-01T00:00:00Z	2001-12-31T23:59:59Z	0.59	175.07
2002-01-01T00:00:00Z	2002-12-31T23:59:59Z	3.57	1050.41
2003-01-01T00:00:00Z	2003-12-31T23:59:59Z	0.0	0.0
2004-01-01T00:00:00Z	2004-12-31T23:59:59Z	0.08	25.01
2005-01-01T00:00:00Z	2005-12-31T23:59:59Z	0.85	250.1
2006-01-01T00:00:00Z	2006-12-31T23:59:59Z	1.61	475.19
2007-01-01T00:00:00Z	2007-12-31T23:59:59Z	0.17	50.02
2008-01-01T00:00:00Z	2008-12-31T23:59:59Z	0.0	0.0
2009-01-01T00:00:00Z	2009-12-31T23:59:59Z	3.74	1100.43
2010-01-01T00:00:00Z	2010-12-31T23:59:59Z	0.0	0.0
2011-01-01T00:00:00Z	2011-12-31T23:59:59Z	0.59	175.07
2012-01-01T00:00:00Z	2012-12-31T23:59:59Z	4.24	1250.49
2013-01-01T00:00:00Z	2013-12-31T23:59:59Z	0.17	50.02
2014-01-01T00:00:00Z	2014-12-31T23:59:59Z	1.02	300.12
2015-01-01T00:00:00Z	2015-12-31T23:59:59Z	0.08	25.01
2016-01-01T00:00:00Z	2016-12-31T23:59:59Z	0.0	0.0

2017-01-01T00:00:00Z	2017-12-31T23:59:59Z	0.25	75.03
2018-01-01T00:00:00Z	2018-12-31T23:59:59Z	0.76	225.09
2019-01-01T00:00:00Z	2019-12-31T23:59:59Z	9.25	2726.07
2020-01-01T00:00:00Z	2020-12-31T23:59:59Z	0.0	0.0
2021-01-01T00:00:00Z	2021-12-31T23:59:59Z	0.0	0.0
2022-01-01T00:00:00Z	2022-12-31T23:59:59Z	0.0	0.0
2023-01-01T00:00:00Z	2023-12-31T23:59:59Z	0.51	150.06
2024-01-01T00:00:00Z	2024-12-31T23:59:59Z	0.0	0.0

Buffered Aoi

Time Start	Time End	Burned Area %	Burned Area (ha)
2001-01-01T00:00:00Z	2001-12-31T23:59:59Z	0.18	199.83
2002-01-01T00:00:00Z	2002-12-31T23:59:59Z	2.52	2722.66
2003-01-01T00:00:00Z	2003-12-31T23:59:59Z	0.02	24.98
2004-01-01T00:00:00Z	2004-12-31T23:59:59Z	0.05	49.96
2005-01-01T00:00:00Z	2005-12-31T23:59:59Z	0.25	274.76
2006-01-01T00:00:00Z	2006-12-31T23:59:59Z	0.9	974.16
2007-01-01T00:00:00Z	2007-12-31T23:59:59Z	0.05	49.96
2008-01-01T00:00:00Z	2008-12-31T23:59:59Z	0.23	249.79
2009-01-	2009-12-	3.3	3571.94

01T00:00:00Z	31T23:59:59Z		
2010-01-01T00:00:00Z	2010-12-31T23:59:59Z	0.0	0.0
2011-01-01T00:00:00Z	2011-12-31T23:59:59Z	0.37	399.66
2012-01-01T00:00:00Z	2012-12-31T23:59:59Z	2.47	2672.71
2013-01-01T00:00:00Z	2013-12-31T23:59:59Z	0.09	99.91
2014-01-01T00:00:00Z	2014-12-31T23:59:59Z	0.37	399.66
2015-01-01T00:00:00Z	2015-12-31T23:59:59Z	0.05	49.96
2016-01-01T00:00:00Z	2016-12-31T23:59:59Z	0.0	0.0
2017-01-01T00:00:00Z	2017-12-31T23:59:59Z	0.07	74.94
2018-01-01T00:00:00Z	2018-12-31T23:59:59Z	0.62	674.42
2019-01-01T00:00:00Z	2019-12-31T23:59:59Z	3.19	3447.04
2020-01-01T00:00:00Z	2020-12-31T23:59:59Z	0.0	0.0
2021-01-01T00:00:00Z	2021-12-31T23:59:59Z	0.0	0.0
2022-01-01T00:00:00Z	2022-12-31T23:59:59Z	0.0	0.0
2023-01-01T00:00:00Z	2023-12-31T23:59:59Z	0.14	149.87
2024-01-01T00:00:00Z	2024-12-31T23:59:59Z	0.05	49.96

Drought Risk Pdsi

Time Start	Time End	Mean PDSI
2000-01-01T00:00:00Z	2000-12-31T23:59:59Z	1.15

2001-01-01T00:00:00Z	2001-12-31T23:59:59Z	0.78
2002-01-01T00:00:00Z	2002-12-31T23:59:59Z	-1.43
2003-01-01T00:00:00Z	2003-12-31T23:59:59Z	-1.15
2004-01-01T00:00:00Z	2004-12-31T23:59:59Z	-0.77
2005-01-01T00:00:00Z	2005-12-31T23:59:59Z	-0.61
2006-01-01T00:00:00Z	2006-12-31T23:59:59Z	-1.94
2007-01-01T00:00:00Z	2007-12-31T23:59:59Z	1.8
2008-01-01T00:00:00Z	2008-12-31T23:59:59Z	0.14
2009-01-01T00:00:00Z	2009-12-31T23:59:59Z	1.75
2010-01-01T00:00:00Z	2010-12-31T23:59:59Z	2.84
2011-01-01T00:00:00Z	2011-12-31T23:59:59Z	-1.94
2012-01-01T00:00:00Z	2012-12-31T23:59:59Z	1.54
2013-01-01T00:00:00Z	2013-12-31T23:59:59Z	2.58
2014-01-01T00:00:00Z	2014-12-31T23:59:59Z	-1.78
2015-01-01T00:00:00Z	2015-12-31T23:59:59Z	-1.63
2016-01-01T00:00:00Z	2016-12-31T23:59:59Z	3.6
2017-01-01T00:00:00Z	2017-12-31T23:59:59Z	1.66
2018-01-01T00:00:00Z	2018-12-31T23:59:59Z	0.98
2019-01-01T00:00:00Z	2019-12-31T23:59:59Z	-1.22
2020-01-01T00:00:00Z	2020-12-31T23:59:59Z	1.55
2021-01-01T00:00:00Z	2021-12-31T23:59:59Z	1.1
2022-01-01T00:00:00Z	2022-12-31T23:59:59Z	3.6
2023-01-01T00:00:00Z	2023-12-31T23:59:59Z	1.55
2024-01-01T00:00:00Z	2024-12-31T23:59:59Z	2.78

Forest Cover Hansen

Time Start	Time End	Forest	Loss	Past Loss	Non-Forest	No Data	Deforestation Rate
2000-01-01T00:00:00Z	2000-12-31T23:59:59Z	96.39	0.0	0.0	3.61	0	0.0
2001-01-01T00:00:00Z	2001-12-31T23:59:59Z	96.31	0.08	0.0	3.61	0	0.08
2002-01-01T00:00:00Z	2002-12-31T23:59:59Z	95.94	0.37	0.08	3.61	0	0.38
2003-01-01T00:00:00Z	2003-12-31T23:59:59Z	95.57	0.37	0.45	3.61	0	0.38
2004-01-01T00:00:00Z	2004-12-31T23:59:59Z	95.36	0.22	0.82	3.61	0	0.23
2005-01-01T00:00:00Z	2005-12-31T23:59:59Z	95.26	0.1	1.04	3.61	0	0.1
2006-01-01T00:00:00Z	2006-12-31T23:59:59Z	95.05	0.21	1.14	3.61	0	0.22
2007-01-01T00:00:00Z	2007-12-31T23:59:59Z	94.65	0.4	1.35	3.61	0	0.42
2008-01-01T00:00:00Z	2008-12-31T23:59:59Z	94.5	0.14	1.75	3.61	0	0.15
2009-	2009-12-	93.55	0.96	1.89	3.61	0	1.01

01-01T00:00:00Z	31T23:59:59Z						
2010-01-01T00:00:00Z	2010-12-31T23:59:59Z	93.11	0.44	2.85	3.61	0	0.47
2011-01-01T00:00:00Z	2011-12-31T23:59:59Z	90.55	2.56	3.29	3.61	0	2.75
2012-01-01T00:00:00Z	2012-12-31T23:59:59Z	88.68	1.87	5.84	3.61	0	2.06
2013-01-01T00:00:00Z	2013-12-31T23:59:59Z	87.89	0.79	7.71	3.61	0	0.89
2014-01-01T00:00:00Z	2014-12-31T23:59:59Z	84.98	2.91	8.5	3.61	0	3.31
2015-01-01T00:00:00Z	2015-12-31T23:59:59Z	80.4	4.58	11.41	3.61	0	5.39
2016-01-01T00:00:00Z	2016-12-31T23:59:59Z	77.33	3.07	15.99	3.61	0	3.82
2017-01-01T00:00:00Z	2017-12-31T23:59:59Z	76.84	0.49	19.06	3.61	0	0.64
2018-01-01T00:00:00Z	2018-12-31T23:59:59Z	76.47	0.37	19.55	3.61	0	0.48
2019-01-01T00:00:00Z	2019-12-31T23:59:59Z	74.9	1.57	19.92	3.61	0	2.06
2020-01-01T00:00:00Z	2020-12-31T23:59:59Z	74.53	0.37	21.5	3.61	0	0.49
2021-01-01T00:00:00	2021-12-31T23:59:	74.35	0.18	21.87	3.61	0	0.24

:00Z	59Z						
2022-01-01T00:00:00Z	2022-12-31T23:59:59Z	74.26	0.09	22.04	3.61	0	0.12
2023-01-01T00:00:00Z	2023-12-31T23:59:59Z	73.66	0.6	22.13	3.61	0	0.81