

Table S1: Airborne Research Australia (ARA) instruments used for aerial monitoring.

Instrument	Type	Sampling	Other
Specim AISA Eagle 2 (ARA-modified)	VNIR hyperspectral line scanner	30cm	62 spectral bands from 400 to 1000nm
Riegl ALS Q680i	Full waveform small footprint lidar	400 kHz PRF	Allows DTM and canopy model at 0.5m sampling
Canon EOD 5D mk4 with Canon L2 24mm lens	DSLR (RGB aerial photography)	10cm	Images collected every 4 seconds during survey
Oxford Technical Solutions xNav500	INS (intertrial navigation system)	Sampling at 100Hz	Close-coupled to Eagle hyperspectral scanner
Novatel SPAN system: LITEF tactical grade IMU with Novatel GPS receiver	Precision fibre-optic gyro INS	Sampling at 150Hz	Close coupled to lidar and DSLR

Table S2: Range of Satellites (commercial and freely available) for gathering multispectral satellite imagery.

Satellite	Spatial Resolution	Spectral Resolution	Temporal Resolution	Data Availability
Landsat 4 MSS	60 m	4 bands (RGB, NIR)	16 days	1982 - 1993
Landsat 7 ETM+	30 – 60 m	8 bands (VNIR, SWIR, TIR, MIR, Pan)	16 days	1999 - current
Landsat 8 OLI	15 – 30 m	11 bands (VNIR, SWIR, Pam, TIR)	16 days	2013 - current
Sentinel 2B	10 - 20 m	13 bands (VNIR, SWIR)	5 days	2017 - current
GeoEye-1	0.50 – 1.85 m	4 bands (VNIR, Pan)	8 days	2008 - current
WorldView-3	0.31 / 1.24 m / 3.7 m / 30 m	28 bands (VNIR, Pan, MS, SWIR, CAVIS)	<1 day	2014 - current
Terra MODIS	250 m – 1 km	36 bands (VNIR, SWIR)	1 – 2 days	1999 - current
PlanetScope	3 m	4 bands (VNIR)	daily	2016 - current

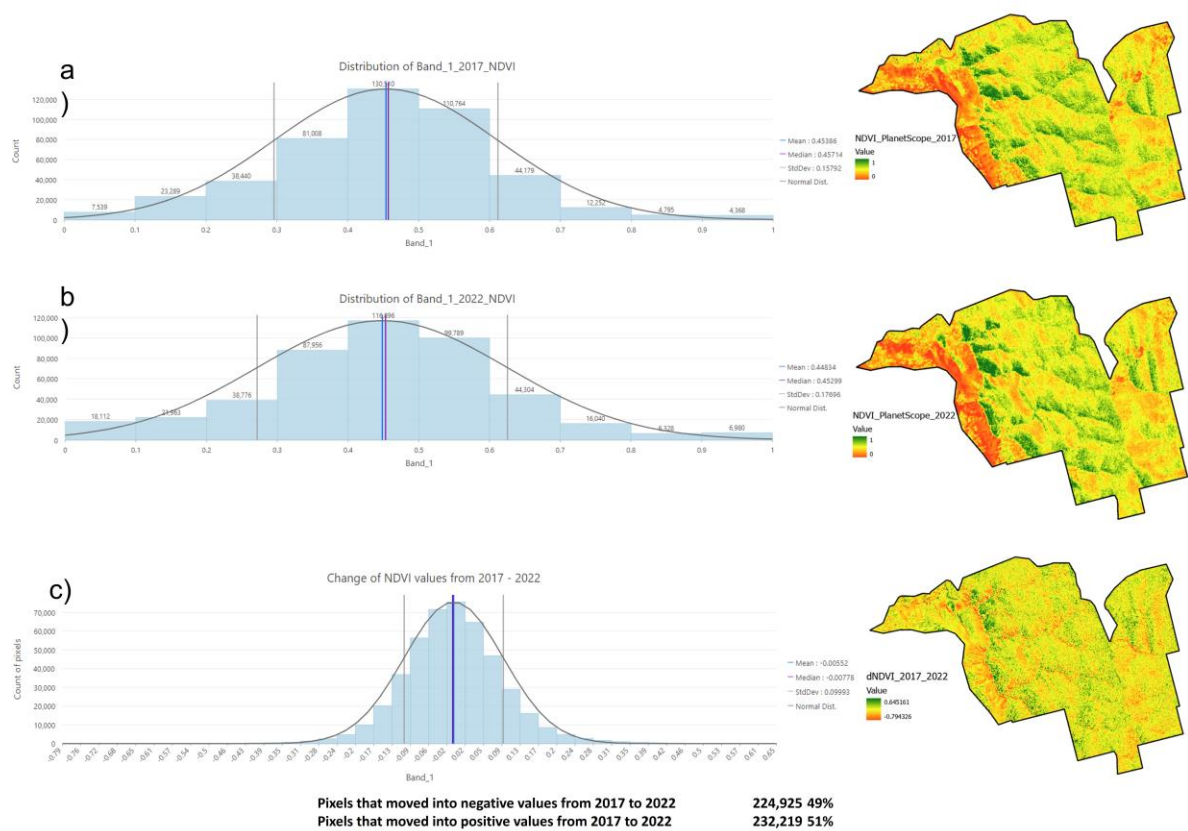


Figure S1: Histograms for a) 2017 and b) 2022 NDVI created from PlanetScope satellite imagery. c) Histogram representing the difference between the 2017 and 2022 NDVI, with results showing 49% of pixels moving negatively and 51% moving positively.

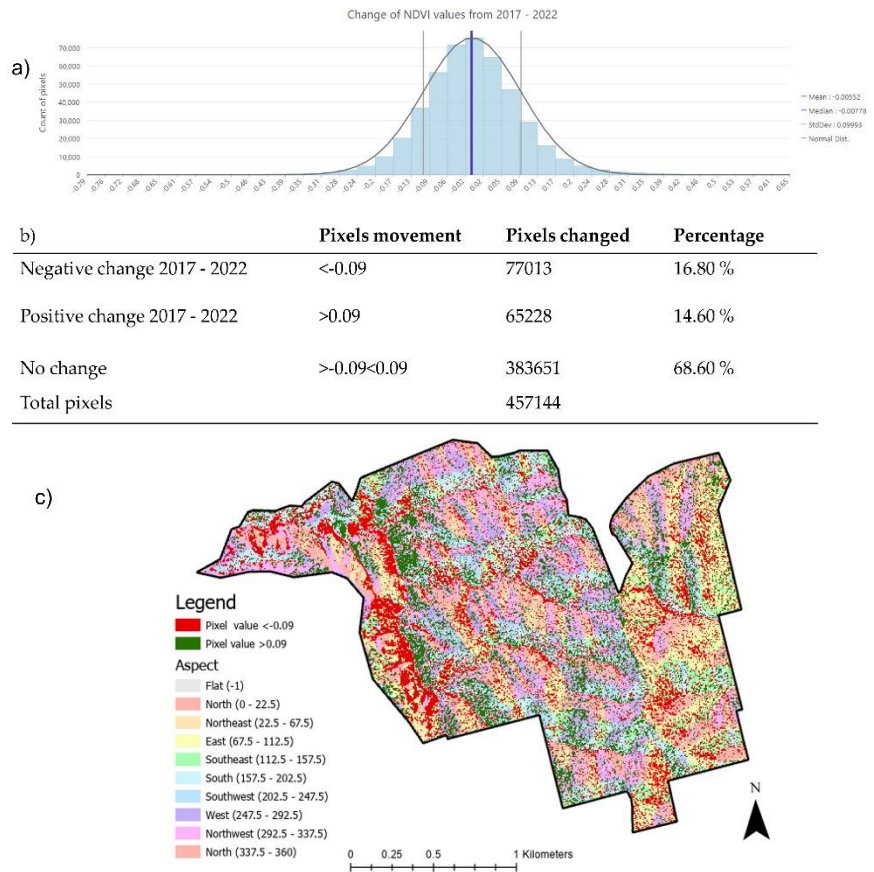


Figure S2: SGCP vegetation health changes were identified using PlanetScope satellite imagery from 2017 – 2022. a) Using the standard deviation threshold of the difference in NDVI histogram to understand changes in pixel values for vegetation health. b) For 68.60% of SGCP, NDVI shifted within 1 standard deviation, interpreted here as trivial variation. c) Significant shifts in vegetation health, interpreted here as greater than 1 standard deviation, occurred for 14.60% (positive; shown in green) and 16.80% (negative; shown in red) of pixels.

Table S3: Changes within vegetation health thresholds.

Name of category	Class name	Class From	Class To	Red	Green	Blue	Alpha	Count	Area m2	Area km2	Change
Dead - dead	1->11	1	11	76	174	177	255	92	828	0.000828	0
Dead - unhealthy	1->22	1	22	132	178	111	255	217	1953	0.001953	Positive
Dead - moderate	1->33	1	33	150	160	160	255	1	9	0.0000009	Positive
Dead - healthy	1->44	1	44	0	0	0	0	0	0	0	0
Unhealthy - dead	2->11	2	11	101	171	172	255	468	4212	0.004212	Negative
Unhealthy - unhealthy	2->22	2	22	156	175	105	255	69918	629262	0.629262	0
Unhealthy - moderate	2->33	2	33	174	157	154	255	21603	194427	0.194427	Positive
Unhealthy - healthy	2->44	2	44	118	94	150	255	13	117	0.000117	Positive
Moderate - dead	3->11	3	11	71	150	156	255	5	45	0.000045	Negative
Moderate - unhealthy	3->22	3	22	127	154	90	255	23224	209016	0.209016	Negative
Moderate - moderate	3->33	3	33	145	136	139	255	289077	2601693	2.601693	0
Moderate - healthy	3->44	3	44	89	73	134	255	21847	196623	0.196623	Positive
Healthy - dead	4->11	4	11	0	0	0	0	0	0	0	0
Healthy - unhealthy	4->22	4	22	99	118	53	255	34	306	0.000306	Negative
Healthy - moderate	4->33	4	33	117	99	102	255	8717	78453	0.078453	Negative
Healthy - healthy	4->44	4	44	61	36	98	255	21687	195183	0.195183	0
Total area of SGCP										4.1121189	