

Table S1. 67 variables were extracted from the satellite image data.

Variable	Formular	Description
B2	Blue, 450nm - 510nm	Reflectance of the Landsat-8 blue light band
B3	Green, 525nm - 600nm	Reflectance of the Landsat-8 green light band
B4	Red, 640nm - 670nm	Reflectance of the Landsat-8 red light band
B5	Nir, 850nm - 880nm	Reflectance of the Landsat-8 near-infrared light band
B6	SWIR1, 1560nm - 1660nm	Reflectance of the Landsat-8 short-wave infrared 1 light band
B7	SWIR2, 2100nm - 2300nm	Reflectance of the Landsat-8 short-wave infrared 2 light band
Wetness	$0.1509 \times B2 + 0.1973 \times B3 + 0.3279 \times B4 + 0.3406 \times B5 - 0.7112 \times B6 - 0.4572 \times B7$	Tasseled Cap (KT) transformation wetness
Brightness	$0.2848 \times B2 - 0.2435 \times B3 - 0.5436 \times B4 + 0.5585 \times B5 + 0.5082 \times B6 - 0.1800 \times B7$	Tasseled Cap (KT) transformation brightness
Greeness	$0.3037 \times B2 - 0.2793 \times B3 + 0.4743 \times B4 + 0.7243 \times B5 + 0.0840 \times B6 + 0.1863 \times B7$	Tasseled Cap (KT) transformation Greeness
GCI	$B5 / B3 - 1$	Green Chlorophyll vegetation index
SAVI	$(B5 - B4) \times (1 + 0.5) / (B5 + B4 + 0.5)$	Vegetation index for adjusting soil brightness
VARI	$(B3 - B4) / (B3 + B4 - B2)$	Visible atmospheric impedance vegetation index
RVI	$B5 / B4$	Ratio vegetation index
EVI	$2.5 \times (B5 - B4) / (B5 + 6.0 \times B4 - 7.5 \times B2 + 1)$	Enhanced vegetation index
DVI	$B5 - B4$	Difference vegetation index
Slope	-	Slope extracted from DEM data
ND563	$(B5 + B6 - B3) \times (B5 + B6 + B3)$	Normalized difference vegetation index
ND67	$(B7 - B6) \times (B7 + B6)$	Normalized difference vegetation index
ND35	$(B5 - B3) \times (B5 + B3)$	Normalized difference vegetation index
ND56	$(B6 - B5) \times (B6 + B5)$	Normalized difference vegetation index
ND25	$(B5 - B2) \times (B5 + B2)$	Normalized difference vegetation index
ND26	$(B6 - B2) \times (B6 + B2)$	Normalized difference vegetation index
ND36	$(B6 - B3) \times (B6 + B3)$	Normalized difference vegetation index
ND46	$(B6 - B4) \times (B6 + B4)$	Normalized difference vegetation index
ND45	$(B5 - B4) \times (B5 + B4)$	Normalized difference vegetation index
ME2	$\sum_{i,j=0}^{N-1} iP_{ij}$	Mean of the four directional textural features of band 2
ME3	$\sum_{i,j=0}^{N-1} iP_{ij}$	Mean of the four directional textural features of band 3
ME4	$\sum_{i,j=0}^{N-1} iP_{ij}$	Mean of the four directional textural features of band 4

ME5	$\sum_{i,j=0}^{N-1} iP_{ij}$	Mean of the four directional textural features of band 5
ME6	$\sum_{i,j=0}^{N-1} iP_{ij}$	Mean of the four directional textural features of band 6
ME7	$\sum_{i,j=0}^{N-1} iP_{ij}$	Mean of the four directional textural features of band 7
Var2	$\sum_{i,j=0}^{N-1} P_{i,j}(i - ME)^2$	Sum variance of the gray-level co-occurrence matrix of band 2
Var3	$\sum_{i,j=0}^{N-1} P_{i,j}(i - ME)^2$	Sum variance of the gray-level co-occurrence matrix of band 3
Var4	$\sum_{i,j=0}^{N-1} P_{i,j}(i - ME)^2$	Sum variance of the gray-level co-occurrence matrix of band 4
Var5	$\sum_{i,j=0}^{N-1} P_{i,j}(i - ME)^2$	Sum variance of the gray-level co-occurrence matrix of band 5
Var6	$\sum_{i,j=0}^{N-1} P_{i,j}(i - ME)^2$	Sum variance of the gray-level co-occurrence matrix of band 6
Var7	$\sum_{i,j=0}^{N-1} P_{i,j}(i - ME)^2$	Sum variance of the gray-level co-occurrence matrix of band 7
Ho2	$\sum_{i,j=0}^{N-1} i \frac{P_{ij}}{1 + (i - j)^2}$	Homogeneity of the gray-level co-occurrence matrix of band 2
Ho3	$\sum_{i,j=0}^{N-1} i \frac{P_{ij}}{1 + (i - j)^2}$	Homogeneity of the gray-level co-occurrence matrix of band 3
Ho4	$\sum_{i,j=0}^{N-1} i \frac{P_{ij}}{1 + (i - j)^2}$	Homogeneity of the gray-level co-occurrence matrix of band 4
Ho5	$\sum_{i,j=0}^{N-1} i \frac{P_{ij}}{1 + (i - j)^2}$	Homogeneity of the gray-level co-occurrence matrix of band 5
Ho6	$\sum_{i,j=0}^{N-1} i \frac{P_{ij}}{1 + (i - j)^2}$	Homogeneity of the gray-level co-occurrence matrix of band 6

Ho7	$\sum_{i,j=0}^{N-1} i \frac{P_{ij}}{1 + (i - j)^2}$	Homogeneity of the gray-level co-occurrence matrix of band 7
Con2	$\sum_{i,j=0}^{N-1} (i - j)^2 P(i, j)$	Contrast of the gray-level co-occurrence matrix of band 2
Con3	$\sum_{i,j=0}^{N-1} (i - j)^2 P(i, j)$	Contrast of the gray-level co-occurrence matrix of band 3
Con4	$\sum_{i,j=0}^{N-1} (i - j)^2 P(i, j)$	Contrast of the gray-level co-occurrence matrix of band 4
Con5	$\sum_{i,j=0}^{N-1} (i - j)^2 P(i, j)$	Contrast of the gray-level co-occurrence matrix of band 5
Con6	$\sum_{i,j=0}^{N-1} (i - j)^2 P(i, j)$	Contrast of the gray-level co-occurrence matrix of band 6
Con7	$\sum_{i,j=0}^{N-1} (i - j)^2 P(i, j)$	Contrast of the gray-level co-occurrence matrix of band 7
Dis2	$\sum_{i,j=0}^{N-1} P_{i,j} i - j $	Dissimilarity of the gray-level co-occurrence matrix of band 2
Dis3	$\sum_{i,j=0}^{N-1} P_{i,j} i - j $	Dissimilarity of the gray-level co-occurrence matrix of band 3
Dis4	$\sum_{i,j=0}^{N-1} P_{i,j} i - j $	Dissimilarity of the gray-level co-occurrence matrix of band 4
Dis5	$\sum_{i,j=0}^{N-1} P_{i,j} i - j $	Dissimilarity of the gray-level co-occurrence matrix of band 5
Dis6	$\sum_{i,j=0}^{N-1} P_{i,j} i - j $	Dissimilarity of the gray-level co-occurrence matrix of band 6
Dis7	$\sum_{i,j=0}^{N-1} P_{i,j} i - j $	Dissimilarity of the gray-level co-occurrence matrix of band 7
SM2	$\sum_{i,j=0}^{N-1} P_{i,j}$	Angular second moment of band 2

SM3	$\sum_{i,j=0}^{N-1} P_{i,j}$	Angular second moment of band 3
SM4	$\sum_{i,j=0}^{N-1} P_{i,j}$	Angular second moment of band 4
SM5	$\sum_{i,j=0}^{N-1} P_{i,j}$	Angular second moment of band 5
SM6	$\sum_{i,j=0}^{N-1} P_{i,j}$	Angular second moment of band 6
SM7	$\sum_{i,j=0}^{N-1} P_{i,j}$	Angular second moment of band 7
Cor2	$\sum_{i,j=0}^{N-1} iP_{ij} \left[\frac{(i - ME)(j - ME)}{\sqrt{VA_i VA_j}} \right]$	The correlation texture between the grey levels and those neighboring pixels of band 2
Cor3	$\sum_{i,j=0}^{N-1} iP_{ij} \left[\frac{(i - ME)(j - ME)}{\sqrt{VA_i VA_j}} \right]$	The correlation texture between the grey levels and those neighboring pixels of band 3
Cor4	$\sum_{i,j=0}^{N-1} iP_{ij} \left[\frac{(i - ME)(j - ME)}{\sqrt{VA_i VA_j}} \right]$	The correlation texture between the grey levels and those neighboring pixels of band 4
Cor5	$\sum_{i,j=0}^{N-1} iP_{ij} \left[\frac{(i - ME)(j - ME)}{\sqrt{VA_i VA_j}} \right]$	The correlation texture between the grey levels and those neighboring pixels of band 5
Cor6	$\sum_{i,j=0}^{N-1} iP_{ij} \left[\frac{(i - ME)(j - ME)}{\sqrt{VA_i VA_j}} \right]$	The correlation texture between the grey levels and those neighboring pixels of band 6
Cor7	$\sum_{i,j=0}^{N-1} iP_{ij} \left[\frac{(i - ME)(j - ME)}{\sqrt{VA_i VA_j}} \right]$	The correlation texture between the grey levels and those neighboring pixels of band 7
