

SUPPLEMENTARY DOCUMENT

Formula S1. Conversion of DN images (Landsat 8 OLI) to surface reflectance images (Landsat, 2016).

The DN values were converted into top of the atmosphere (TOA) reflectance without sun angle correction using the following formula:

$$p\lambda' = M_p Q_{cal} + A_p$$

Where $p\lambda'$: TOA planetary reflectance, without correction for solar angle. Note that $p\lambda$ does not contain a correction for the sun angle; M_p : Band-specific multiplicative rescaling factor from the metadata (REFLECTANCE_MULT_- BAND_x, where x is the band number); A_p : Band-specific additive rescaling factor from the metadata (REFLECTANCE_ADD_BAND_x, where x is the band number); Q_{cal} : Quantized and calibrated standard product pixel values (DN).

Afterward, the Sun Angle correction have been achieved using the following formula:

$$p\lambda = p\lambda' / \cos(\theta_{sz}) = p\lambda' / \sin(\theta_{se})$$

Where $p\lambda$: TOA planetary reflectance; θ_{se} : Local sun elevation angle, The scene center sun elevation angle in degrees is provided in the metadata (SUN_ELEVATION); θ_{sz} : Local solar zenith angle; $\theta_{sz} = 90^\circ - \theta_{se}$

Table S1. Wetland transition statistics (1995-2002); (1): *marine water bodies* (2): *inland water bodies*, (3): *mangrove forests*, (4): *sparse mangrove/saltmarshes*, (5): *forested wetlands*, (6): *rice fields/other crops*, (7): *aquaculture ponds*.

		1995														Coverage 2002
Wetland classes		(1)		(2)		(3)		(4)		(5)		(6)		(7)		
		km²	%	km²	%	km²	%	km²	%	km²	%	km²	%	km²	%	
2002	(1)	18.2	52.5	0.6	0.4	17.7	2.9	1.4	0.2	0.0	0.0	0.1	0.0	0.6	0.1	38.6
	(2)	0.8	2.4	126.7	89.6	5.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	139.7
	(3)	15.2	43.9	0.0	0.0	361.7	59.2	148.2	23.3	0.0	0.0	0.0	0.0	71.0	10.7	596.1
	(4)	0.3	0.7	0.0	0.0	115.5	18.9	163.3	25.7	0.0	0.0	33.5	1.1	71.2	10.8	383.8
	(5)	0.0	0.0	14.1	10.0	0.0	0.0	0.0	0.0	520.2	83.7	66.1	2.2	0.0	0.0	600.4
	(6)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.9	14.6	1642.9	54.1	0.0	0.0	1733.7
	(7)	0.0	0.0	0.0	0.0	108.1	17.7	286.7	45.2	6.0	1.0	1104.6	36.4	518.6	78.4	2054.7
Coverage 1995		34.6	-	141.4	-	611.0	-	634.5	-	621.4	-	3036.8	-	661.4	-	-
Class Changes		16.3	47.0	14.7	10.4	246.3	40.3	436.3	68.8	96.9	15.6	1204.2	39.7	142.8	21.6	16.3
Change (1995-2002)		4.0	11.6	-1.8	-1.2	-15.0	-2.5	-250.8	-39.5	-21.0	-3.4	-1303.1	-42.9	1393.3	210.7	-

Table S2. Wetland transition statistics (2002-2013)

2002																
Wetland classes		(1)		(2)		(3)		(4)		(5)		(6)		(7)		Coverage 2013
		km ²	%	km ²	%	km ²	%	km ²	%	km ²	%	km ²	%	km ²	%	
2013	(1)	28.1	72.7	2.1	1.5	34.2	5.7	2.7	0.7	0.0	0.0	2.2	0.1	2.8	0.1	72.1
	(2)	0.5	1.2	135.8	97.2	0.0	0.0	0.0	0.0	2.6	0.4	0.0	0.0	0.0	0.0	138.9
	(3)	9.4	24.2	0.0	0.0	371.8	62.4	114.3	29.8	0.1	0.0	0.0	0.0	73.6	3.6	569.2
	(4)	0.7	1.9	0.0	0.0	120.9	20.3	160.8	41.9	0.0	0.0	0.3	0.0	119.3	5.8	470.8
	(5)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	447.2	74.5	59.1	3.4	0.0	0.0	513.1
	(6)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	139.5	23.2	1470.1	84.8	63.4	3.1	1673.1
	(7)	0.0	0.0	0.0	0.0	62.2	10.4	106.0	27.6	10.9	1.8	194.2	11.2	1709.9	83.2	2083.2
Coverage 2002		38.6	-	139.7	-	596.1	-	383.8	-	600.4	-	1733.7	-	2054.7	-	-
Class Changes		10.6	27.3	2.1	1.5	217.2	36.4	223.0	58.1	153.1	25.5	255.8	14.8	259.1	12.6	-
Change (2002-2013)		33.5	86.6	-0.8	-0.6	-26.9	-4.5	87.0	22.7	-87.3	-14.5	-60.6	-3.5	28.5	1.4	-

Table S3. Wetland transition statistics (2013-2020)

2013																
Wetland classes		(1)		(2)		(3)		(4)		(5)		(6)		(7)		Coverage 2020
		km ²	%	km ²	%	km ²	%	km ²	%	km ²	%	km ²	%	km ²	%	
2020	(1)	62.6	86.8	0.7	0.5	13.3	2.3	1.3	0.3	0.0	0.0	0.1	0.0	0.6	0.0	79.3
	(2)	0.4	0.5	125.4	90.3	4.1	0.7	2.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	132.6
	(3)	8.8	12.2	0.0	0.0	416.4	73.1	123.5	26.2	0.0	0.0	0.0	0.0	32.4	1.6	581.0
	(4)	0.3	0.5	0.0	0.0	108.5	19.1	181.2	38.5	0.0	0.0	1.0	0.1	84.4	4.1	375.4
	(5)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	381.1	74.3	42.8	2.6	0.0	0.0	423.8
	(6)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83.5	16.3	748.7	44.7	0.0	0.0	832.2
	(7)	0.0	0.0	0.0	0.0	25.1	4.4	61.3	13.0	39.5	7.7	801.5	47.9	1965.8	94.4	2942.9
Coverage 2013		72.1	-	138.9	-	569.2	-	470.8	-	513.1	-	1673.1	-	2083.2	-	-
Class Changes		9.5	13.2	0.7	0.5	150.9	26.5	188.7	40.1	123.0	24.0	845.3	50.5	117.3	9.5	-
Change (2013-2020)		7.3	10.1	-6.3	-4.5	11.8	2.1	-95.5	-20.3	-89.3	-17.4	-840.9	-50.3	859.7	41.3	-

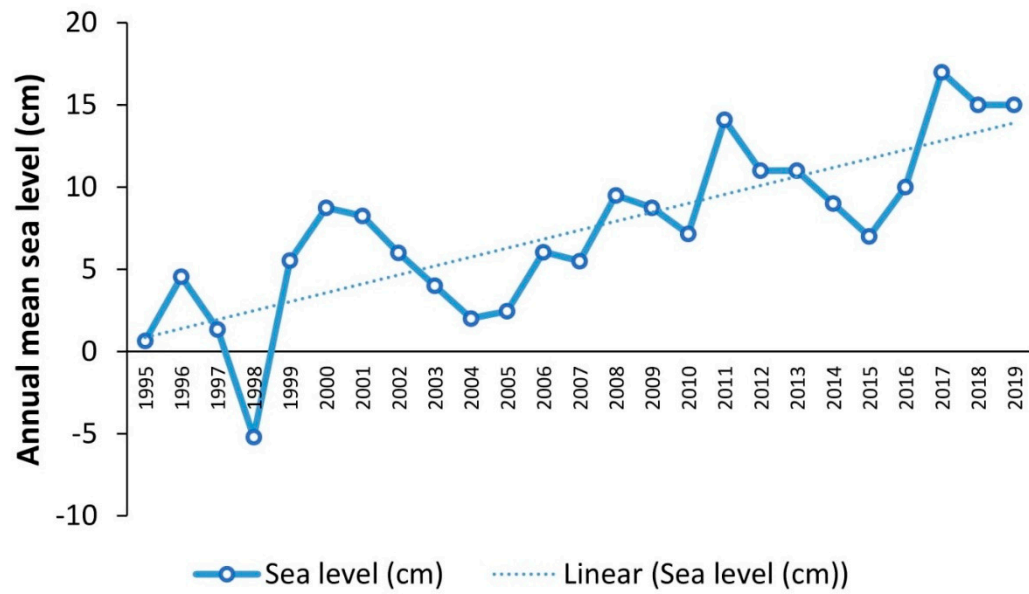


Figure S1. Sea level trend in the west sea of the Mekong Delta, Vietnam (1995-2019).

Reference

Landsat, U. S. G. S. (2016). 8 (L8) Data Users Handbook Version 2.0. *EROS, Sioux Falls, South Dakota*.