

Greenhouse gas emissions from tropical coastal wetlands and their alternative agricultural lands: Where significant mitigation gains lie

Iram et al. 2021

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Greenhouse gas emissions from tropical coastal wetlands and agricultural lands across annual seasonal cycle: Raw Data

Land use	Season	Replicate	CO2 (mg/m2/hour)	CH4 (µg/m2/hour)	N2O-N (µg/m2/hour)
Mangroves	Dry-Cold	1	153.42	7.12	2.49
Mangroves	Dry-Cold	2	139.32	9.31	0.00
Mangroves	Dry-Cold	3	178.25	14.09	0.00
Mangroves	Dry-Cold	1	146.94	78.67	-10.25
Mangroves	Dry-Cold	2	132.27	272.39	-15.68
Mangroves	Dry-Cold	3	119.56	370.68	-4.67
Mangroves	Dry-Cold	4	137.18	232.47	-7.90
Mangroves	Dry-Cold	5	131.42	102.86	-16.38
Mangroves	Dry-Cold	6	71.14	30.14	-50.36
Mangroves	Dry-Cold	7	129.54	35.42	-31.14
Mangroves	Dry-Cold	8	119.48	59.05	-21.42
Mangroves	Dry-Cold	9	81.78	25.20	-5.55
Mangroves	Dry-Cold	10	123.94	201.65	-1.82
Mangroves	Dry-Cold	11	98.48	77.93	-48.72
Mangroves	Dry-Cold	12	97.29	228.97	-18.23
Mangroves	Dry-Cold	13	61.34	54.64	-24.34
Mangroves	Dry-Cold	14	58.67	166.59	-19.31
Mangroves	Dry-Cold	15	82.47	175.88	-19.50
Saltmarsh	Dry-Cold	1	11.32	-9.17	2.67
Saltmarsh	Dry-Cold	2	5.98	-10.60	2.65
Saltmarsh	Dry-Cold	3	9.38	-12.73	2.79
Saltmarsh	Dry-Cold	1	-58.47	-2.66	7.00
Saltmarsh	Dry-Cold	2	-97.08	-2.70	3.45
Saltmarsh	Dry-Cold	3	-60.19	0.65	1.28
Saltmarsh	Dry-Cold	4	-72.93	-3.29	0.54
Saltmarsh	Dry-Cold	5	0.99	2.40	7.24
Saltmarsh	Dry-Cold	6	-82.09	-5.65	4.29
Saltmarsh	Dry-Cold	7	-40.11	-14.99	0.72
Saltmarsh	Dry-Cold	8	-24.60	-2.14	2.83
Saltmarsh	Dry-Cold	9	-65.84	-23.46	5.08
Saltmarsh	Dry-Cold	10	-66.18	-1.35	4.21
Saltmarsh	Dry-Cold	11	-68.59	-12.05	10.13
Saltmarsh	Dry-Cold	12	-37.39	-1.95	7.49
Saltmarsh	Dry-Cold	13	14.18	-5.07	15.07
Saltmarsh	Dry-Cold	14	-27.15	-7.55	-1.24
Saltmarsh	Dry-Cold	15	-15.00	-1.67	9.17
FW tidal wetland	Dry-Cold	1	246.11	102.83	-1.03
FW tidal wetland	Dry-Cold	2	218.41	82.70	0.35
FW tidal wetland	Dry-Cold	3	253.00	53.82	4.93
FW tidal wetland	Dry-Cold	4	218.29	150.71	1.56
FW tidal wetland	Dry-Cold	5	236.02	54.02	0.43
FW tidal wetland	Dry-Cold	6	49.24	26.56	-7.44
FW tidal wetland	Dry-Cold	7	55.55	0.60	-2.13
FW tidal wetland	Dry-Cold	8	49.79	16.67	3.55
FW tidal wetland	Dry-Cold	9	55.87	11.93	12.28
FW tidal wetland	Dry-Cold	10	40.42	73.27	3.24
FW tidal wetland	Dry-Cold	11	117.89	26.70	-6.74

FW tidal wetland	Dry-Cold	12	99.34	60.78	7.92
FW tidal wetland	Dry-Cold	13	81.41	9.96	2.14
FW tidal wetland	Dry-Cold	14	75.49	19.03	2.69
FW tidal wetland	Dry-Cold	15	58.28	-1.73	1.27
Sugarcane	Dry-Cold	1	68.18	-25.35	-5.54
Sugarcane	Dry-Cold	2	47.88	-18.16	-8.67
Sugarcane	Dry-Cold	3	61.81	-27.45	-12.01
Sugarcane	Dry-Cold	1	125.50	-14.81	-3.85
Sugarcane	Dry-Cold	2	100.44	3.54	-9.61
Sugarcane	Dry-Cold	3	112.37	3.36	-5.97
Sugarcane	Dry-Cold	4	132.08	-14.73	-5.05
Sugarcane	Dry-Cold	5	137.19	2.56	-7.67
Sugarcane	Dry-Cold	6	30.28	-4.20	-5.46
Sugarcane	Dry-Cold	7	35.29	-9.78	-4.02
Sugarcane	Dry-Cold	8	28.36	-12.15	-3.78
Sugarcane	Dry-Cold	9	30.11	-15.07	-4.39
Sugarcane	Dry-Cold	10	37.91	-14.45	-4.45
Sugarcane	Dry-Cold	11	32.49	-9.56	-5.46
Sugarcane	Dry-Cold	12	38.04	-10.30	-4.02
Sugarcane	Dry-Cold	13	17.73	-9.66	-3.78
Sugarcane	Dry-Cold	14	12.89	-9.73	-4.39
Sugarcane	Dry-Cold	15	15.58	-9.86	-4.45
Dry ponded pasture	Dry-Cold	1	319.57	6.13	170.50
Dry ponded pasture	Dry-Cold	2	480.56	14.61	122.49
Dry ponded pasture	Dry-Cold	3	213.81	12.87	152.50
Dry ponded pasture	Dry-Cold	4	499.73	11.36	178.40
Dry ponded pasture	Dry-Cold	5	949.72	25.15	393.89
Dry ponded pasture	Dry-Cold	6	418.45	18.95	66.82
Dry ponded pasture	Dry-Cold	7	336.48	4.88	18.14
Dry ponded pasture	Dry-Cold	8	379.92	-9.66	19.75
Dry ponded pasture	Dry-Cold	9	593.20	46.20	335.94
Dry ponded pasture	Dry-Cold	10	529.93	-16.29	239.77
Wet ponded pasture	Dry-Cold	1	19.59	2957.20	36.77
Wet ponded pasture	Dry-Cold	2	88.75	26108.86	54.19
Wet ponded pasture	Dry-Cold	3	41.55	26870.72	27.77
Wet ponded pasture	Dry-Cold	4	45.92	17183.93	41.80
Wet ponded pasture	Dry-Cold	5	17.03	2338.01	29.94
Wet ponded pasture	Dry-Cold	6	30.32	7713.55	17.85
Wet ponded pasture	Dry-Cold	7	9.38	10881.02	23.61
Wet ponded pasture	Dry-Cold	8	48.74	10855.72	5.88
Wet ponded pasture	Dry-Cold	9	52.98	8161.26	21.35
Wet ponded pasture	Dry-Cold	10	14.21	9212.73	22.64
Mangroves	Dry-Hot	1	122.95	17.59	17.49
Mangroves	Dry-Hot	2	83.77	15.55	13.71
Mangroves	Dry-Hot	3	156.79	17.47	22.29
Mangroves	Dry-Hot	4	144.06	26.38	32.33
Mangroves	Dry-Hot	5	109.13	16.90	23.58
Mangroves	Dry-Hot	6	231.75	15.40	26.85
Mangroves	Dry-Hot	7	125.14	5.02	8.79
Mangroves	Dry-Hot	8	122.58	8.76	14.02
Mangroves	Dry-Hot	9	132.31	16.14	9.31
Saltmarsh	Dry-Hot	1	-56.84	-14.34	17.36
Saltmarsh	Dry-Hot	2	-59.13	-14.83	58.67
Saltmarsh	Dry-Hot	3	-53.74	-9.51	81.55
Saltmarsh	Dry-Hot	4	-44.59	-5.58	20.49
Saltmarsh	Dry-Hot	5	-56.56	-8.36	95.44

Saltmarsh	Dry-Hot	6	-38.79	-9.90	165.84
Saltmarsh	Dry-Hot	7	-30.99	-10.67	20.48
Saltmarsh	Dry-Hot	8	-40.01	-2.00	77.71
Saltmarsh	Dry-Hot	9	-65.88	-4.57	122.06
FW tidal wetland	Dry-Hot	1	237.06	4.53	7.58
FW tidal wetland	Dry-Hot	2	282.37	10.54	1.75
FW tidal wetland	Dry-Hot	3	212.06	7.19	1.60
FW tidal wetland	Dry-Hot	4	199.74	7.09	1.91
FW tidal wetland	Dry-Hot	5	96.87	5.17	5.38
FW tidal wetland	Dry-Hot	6	264.12	5.15	7.49
FW tidal wetland	Dry-Hot	7	288.33	11.72	7.83
FW tidal wetland	Dry-Hot	8	219.64	1.14	3.21
FW tidal wetland	Dry-Hot	9	354.09	3.53	2.34
Sugarcane	Dry-Hot	1	202.01	22.56	801.12
Sugarcane	Dry-Hot	2	205.76	3.22	8.41
Sugarcane	Dry-Hot	3	112.32	11.54	574.39
Sugarcane	Dry-Hot	4	159.31	3.01	317.65
Sugarcane	Dry-Hot	5	84.91	1.38	464.92
Sugarcane	Dry-Hot	6	188.37	1.32	667.65
Sugarcane	Dry-Hot	7	128.34	9.10	446.05
Sugarcane	Dry-Hot	8	157.68	14.41	421.80
Sugarcane	Dry-Hot	9	208.40	12.35	503.70
Dry ponded pasture	Dry-Hot	1	737.82	3.59	4.14
Dry ponded pasture	Dry-Hot	2	877.98	-0.08	8.69
Dry ponded pasture	Dry-Hot	3	610.17	4.24	8.54
Dry ponded pasture	Dry-Hot	4	648.86	3.94	7.45
Dry ponded pasture	Dry-Hot	5	541.33	10.42	16.56
Dry ponded pasture	Dry-Hot	6	744.15	5.33	5.24
Dry ponded pasture	Dry-Hot	7	721.74	3.54	11.94
Dry ponded pasture	Dry-Hot	8	477.30	5.23	14.31
Dry ponded pasture	Dry-Hot	9	549.06	9.98	6.21
Dry ponded pasture	Dry-Hot	10	703.69	2.52	1.87
Dry ponded pasture	Dry-Hot	11	648.71	2.35	11.65
Wet ponded pasture	Dry-Hot	1	739.48	94514.74	119.21
Wet ponded pasture	Dry-Hot	2	639.16	100316.66	94.05
Wet ponded pasture	Dry-Hot	3	469.04	59077.07	132.10
Wet ponded pasture	Dry-Hot	4	400.71	27306.52	70.47
Wet ponded pasture	Dry-Hot	5	514.59	25270.21	119.84
Wet ponded pasture	Dry-Hot	6	506.21	33480.44	436.95
Wet ponded pasture	Dry-Hot	7	660.90	23772.51	335.70
Wet ponded pasture	Dry-Hot	8	728.68	14353.43	332.28
Wet ponded pasture	Dry-Hot	9	562.20	40968.53	716.23
Wet ponded pasture	Dry-Hot	10	392.95	42638.00	147.24
Wet ponded pasture	Dry-Hot	11	430.43	56203.81	276.61
Mangroves	Wet-Hot	1	500.77	278.14	-8.22
Mangroves	Wet-Hot	2	322.10	300.67	-3.20
Mangroves	Wet-Hot	3	371.71	181.10	-3.30
Mangroves	Wet-Hot	4	295.57	284.73	-12.19
Mangroves	Wet-Hot	5	410.98	189.51	-9.26
Mangroves	Wet-Hot	6	229.03	131.69	-1.58
Mangroves	Wet-Hot	7	177.11	106.45	-3.30
Mangroves	Wet-Hot	8	153.63	136.09	-5.96
Mangroves	Wet-Hot	9	120.04	154.01	-1.27
Mangroves	Wet-Hot	10	254.00	163.27	-4.10
Mangroves	Wet-Hot	11	98.83	53.81	-6.10
Mangroves	Wet-Hot	12	207.55	172.75	-0.41

Mangroves	Wet-Hot	13	111.29	57.90	-6.67
Mangroves	Wet-Hot	14	117.96	158.86	-2.81
Mangroves	Wet-Hot	15	172.60	96.69	-5.32
Saltmarsh	Wet-Hot	1	-8.57	5.85	-5.97
Saltmarsh	Wet-Hot	2	-15.61	9.31	-3.41
Saltmarsh	Wet-Hot	3	-8.65	4.25	-4.24
Saltmarsh	Wet-Hot	4	-12.75	7.73	-4.86
Saltmarsh	Wet-Hot	5	-17.80	8.52	-6.26
Saltmarsh	Wet-Hot	6	-31.07	3.28	-7.51
Saltmarsh	Wet-Hot	7	-23.40	4.88	-1.61
Saltmarsh	Wet-Hot	8	-24.09	4.19	-6.67
Saltmarsh	Wet-Hot	9	-26.89	3.12	-4.18
Saltmarsh	Wet-Hot	10	-31.55	3.99	-8.48
Saltmarsh	Wet-Hot	11	-25.73	3.18	-6.12
Saltmarsh	Wet-Hot	12	-32.44	3.23	-10.06
Saltmarsh	Wet-Hot	13	-30.24	3.27	-6.30
Saltmarsh	Wet-Hot	14	-44.95	6.66	-2.94
Saltmarsh	Wet-Hot	15	-37.26	6.59	-7.46
FW tidal wetland	Wet-Hot	1	331.22	7.13	4.31
FW tidal wetland	Wet-Hot	2	327.10	5.75	4.59
FW tidal wetland	Wet-Hot	3	279.86	5.90	6.18
FW tidal wetland	Wet-Hot	4	182.69	6.93	0.30
FW tidal wetland	Wet-Hot	5	273.37	9.36	2.62
FW tidal wetland	Wet-Hot	6	558.51	7.01	2.38
FW tidal wetland	Wet-Hot	7	501.67	5.29	0.99
FW tidal wetland	Wet-Hot	8	421.57	8.39	1.33
FW tidal wetland	Wet-Hot	9	338.42	1.52	5.78
FW tidal wetland	Wet-Hot	10	386.81	4.86	4.22
FW tidal wetland	Wet-Hot	11	734.25	11.77	5.04
FW tidal wetland	Wet-Hot	12	775.55	7.19	8.84
FW tidal wetland	Wet-Hot	13	636.64	4.80	9.66
FW tidal wetland	Wet-Hot	14	552.14	12.15	2.97
FW tidal wetland	Wet-Hot	15	556.49	9.32	0.68
Sugarcane	Wet-Hot	1	442.71	-5.67	52.25
Sugarcane	Wet-Hot	2	440.55	-3.44	55.20
Sugarcane	Wet-Hot	3	315.90	-2.65	64.68
Sugarcane	Wet-Hot	4	334.40	-3.20	73.11
Sugarcane	Wet-Hot	5	304.80	-3.01	49.29
Sugarcane	Wet-Hot	6	263.65	-12.37	27.16
Sugarcane	Wet-Hot	7	384.30	-5.57	77.04
Sugarcane	Wet-Hot	8	313.28	-10.25	69.51
Sugarcane	Wet-Hot	9	310.01	-7.04	77.07
Sugarcane	Wet-Hot	10	296.09	-4.36	63.95
Sugarcane	Wet-Hot	11	99.42	-4.80	17.47
Sugarcane	Wet-Hot	12	208.02	-1.00	92.02
Sugarcane	Wet-Hot	13	154.41	-6.28	10.51
Sugarcane	Wet-Hot	14	242.92	-3.78	38.24
Sugarcane	Wet-Hot	15	237.91	-1.08	20.29
Dry ponded pasture	Wet-Hot	1	857.71	39.89	1107.09
Dry ponded pasture	Wet-Hot	2	1094.43	92.13	1109.65
Dry ponded pasture	Wet-Hot	3	1040.94	30.20	971.59
Dry ponded pasture	Wet-Hot	4	945.82	16.73	1072.66
Dry ponded pasture	Wet-Hot	5	560.33	41.71	942.15
Dry ponded pasture	Wet-Hot	6	1158.08	69.92	2083.00
Dry ponded pasture	Wet-Hot	7	1229.24	100.20	1159.77
Dry ponded pasture	Wet-Hot	8	988.38	34.81	2155.12

Dry ponded pasture	Wet-Hot	9	759.27	18.88	2101.59
Dry ponded pasture	Wet-Hot	10	626.26	30.61	1844.24
Dry ponded pasture	Wet-Hot	11	475.54	27.35	2081.00
Dry ponded pasture	Wet-Hot	12	795.39	19.12	1789.24
Dry ponded pasture	Wet-Hot	13	897.41	11.39	1008.19
Dry ponded pasture	Wet-Hot	14	728.94	15.65	1142.78
Dry ponded pasture	Wet-Hot	15	534.82	13.75	1150.27
Wet ponded pasture	Wet-Hot	1	143.09	11476.01	71.91
Wet ponded pasture	Wet-Hot	2	139.91	9171.85	28.89
Wet ponded pasture	Wet-Hot	3	109.64	8836.40	46.69
Wet ponded pasture	Wet-Hot	4	81.09	8351.20	47.71
Wet ponded pasture	Wet-Hot	5	128.53	10897.51	32.25
Wet ponded pasture	Wet-Hot	6	222.32	13743.33	16.83
Wet ponded pasture	Wet-Hot	7	146.23	7376.51	14.89
Wet ponded pasture	Wet-Hot	8	179.95	11360.45	12.44
Wet ponded pasture	Wet-Hot	9	143.13	9457.48	16.18
Wet ponded pasture	Wet-Hot	10	135.01	9512.04	13.46
Wet ponded pasture	Wet-Hot	11	128.38	11210.00	16.02
Wet ponded pasture	Wet-Hot	12	146.68	12289.67	8.96
Wet ponded pasture	Wet-Hot	13	142.43	10170.75	12.39
Wet ponded pasture	Wet-Hot	14	108.85	12721.08	17.51
Wet ponded pasture	Wet-Hot	15	137.86	15532.15	18.83