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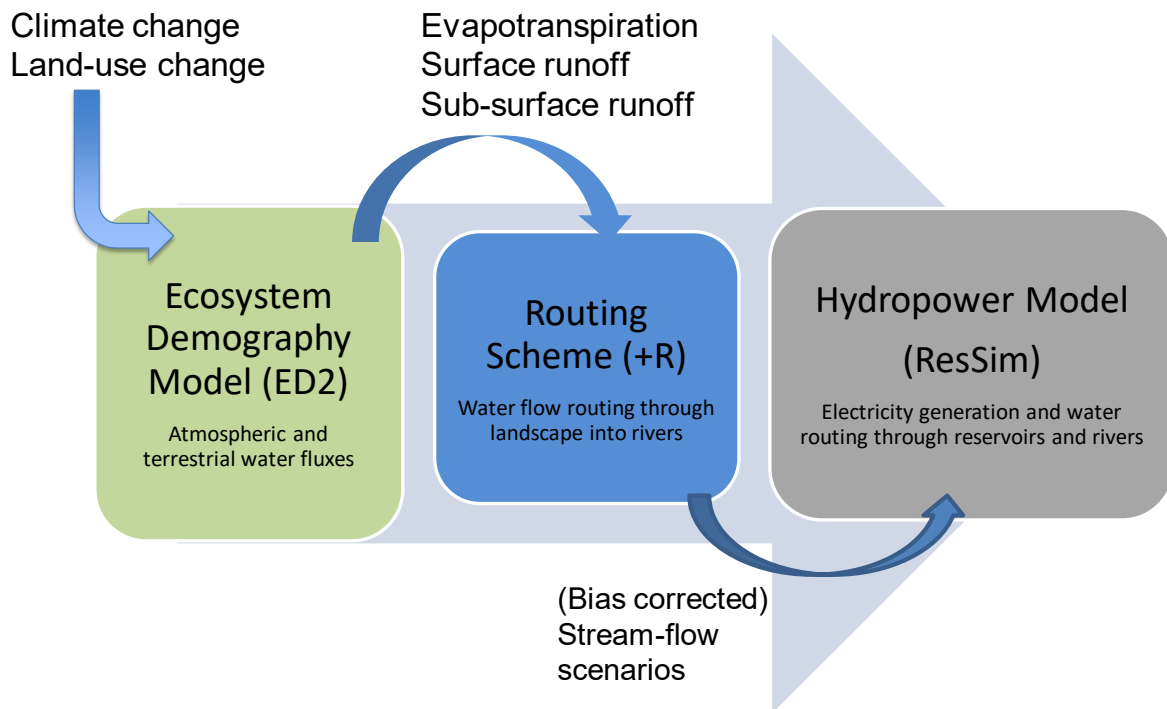
Impacts of climate change and deforestation on hydropower planning in the Brazilian Amazon

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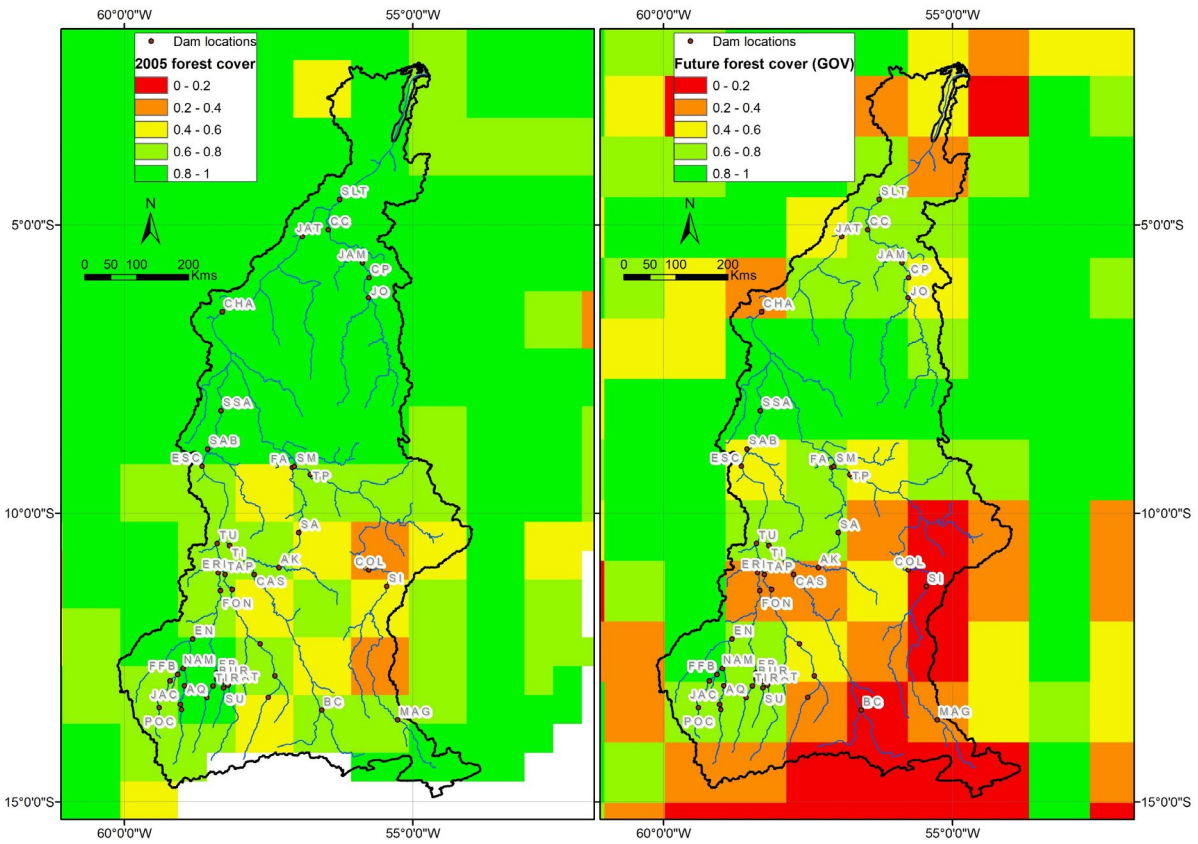
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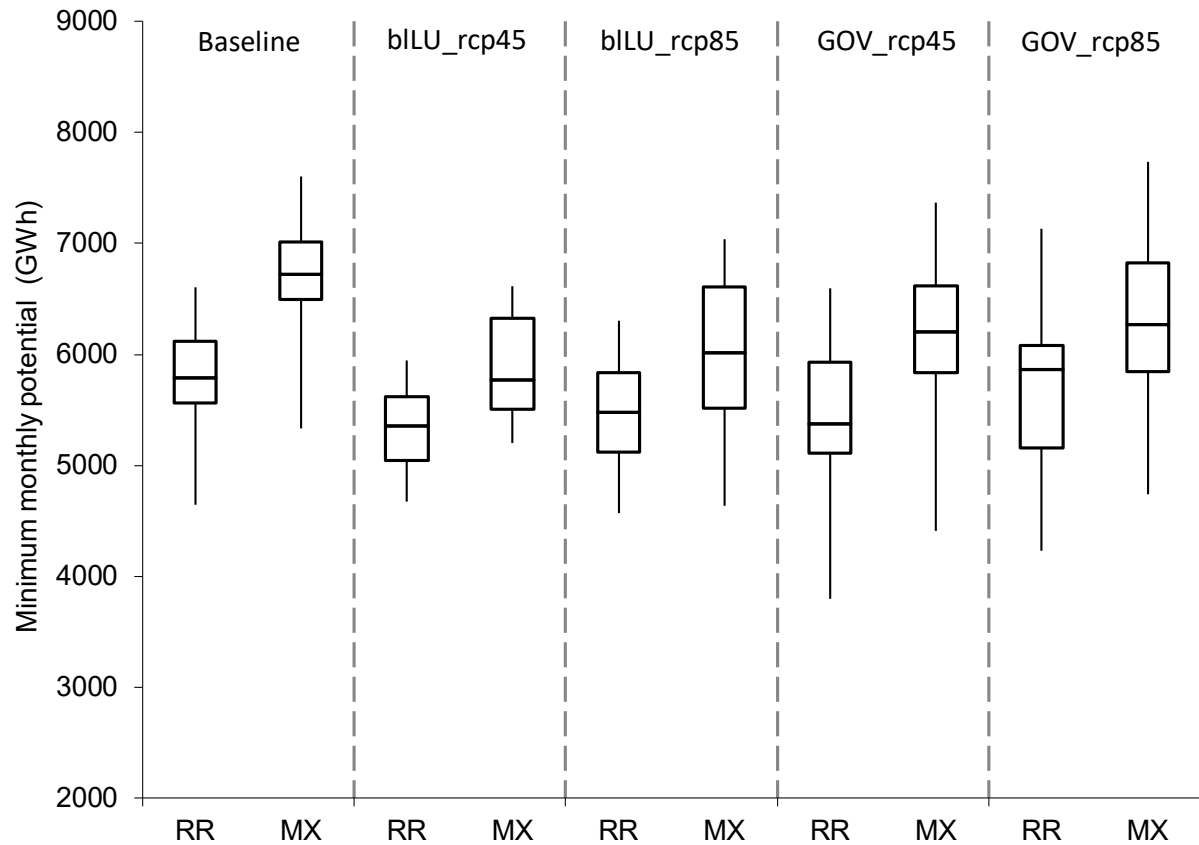
Supplementary Figures



Supplementary Fig 1. Modeling framework used in this study



Supplementary Fig 2. Comparison of forest cover percentage in the baseline scenarios (left) and in the future deforestation scenarios (right). Deforestation projection results from Soares-Filho *et al.*¹.



Supplementary Fig 3. Comparison of power generation during the critical period (minimum month per year) for different future scenarios and for different reservoir operation rules. Run-of-the-river (RR) operations aim to maintain maximum water levels every month, while the optimized operation (MX) scenario modifies monthly water level at individual dams to maximize annual power generation for the entire system. Operation optimization is sufficient to significantly increase minimum monthly production for each scenario when compared to its RR counterpart. When compared to baseline conditions, future scenarios with optimized operations (MX) are not significantly different from the baseline RR, thus sufficient to offset future potential declines. Pairwise comparisons carried out with a t-test are presented in Supplementary Table 3.

Supplementary Tables

Supplementary Table 1. Database of hydropower project feasibility and design in the Tapajos Basin. Compiled from available information from Brazil's National Electricity Agency's library in November of 2014.

Name code	ANEEL code	Name	River	2016 Status	Operation	Lat	Lon	Drainage area (ha)	Area_reservoir (ha)	Vol reser (hm)	Dam height (m)	Dam Elevation (m)	Dam length (m)	Potential Installed (MW)	Plant efficiency (%)	Outlet minimum elevation (m)	Min operation flow	Outlet - total max discharge (m ³ /s)	# of outlets/turbines	Turbine type
SLT	266	Sao Luiz do Tapajos	rio Tapajos	Suspended	R-o/R	-4.5639264999	-56.2727403342	452783	722.3	7,553.83	35.8	54.0	7,608	8040.0	92	12.8, 24.0	5530, 296.7	18435.4, 898.4	31, 2	Kaplan
CAS	ARN-120	Castanheira	rio Arinos	Feasibility study registered	R-o/R	-11.0628486384	-57.7503493704	40452	119.0		22.0	236.5	1335.0	192.0	98	214.5	456.0	1520.0		3 Bulbo
COL	TPR-680	Colider	rio Teles Pires	Construction	Variation	-10.9837301038	-55.7637309124	41508	123.3	1582.0	23.8	272.5	1223.0	300.0	90	248.3	419.4	1398.0		3 Kaplan
JAT	TPJ-456	Jatoba	rio Tapajos	Feasibility study registered	R-o/R	-5.2037497924	-56.9149084367	386711	646.3	4,014.15	16.0	70.0	1287	2338.0	92	50.0	5082.8	16942.6		40 Bulbo
SA	3	Salto Apiacas	rio Apiacas	Basic plan approved	R-o/R	-10.3383355260	-56.9812503207	7237	47.0	3864.537	26.5	252.0	450.0	45.0	88	221.0	70.2	234.14		3 Kaplan
SM	TPR-287	Sao Manoel	rio Teles Pires	Construction	R-o/R	-9.1888854663	-57.0511144849	91488	53.0	577	24.9	165.0	559.0	700.0	92.8	139.4	1141.5	3805.0		5 Kaplan
SI	TPR-775	Sinop	rio Teles Pires	Construction		-11.2698260609	-55.4526738714	37983	329.6	3071.0	31.5	304.0	1000.0	400.0	93	268.9	536.7	1789.0		3 Kaplan
TP	TPR-329	Teles Pires	rio Teles Pires	Construction		-9.3331941019	-56.7762503289	90704	123.4	904.5	59.0	224.0	956.0	1820.0	92	165.0	1716.8	3815.0		6 Francis
AQ	BUR-077	Agua Quente	rio Buriiti	Suspended	Variation	-13.1955658323	-58.5695835905	2980	33.0		49.0	419	>645	51.0	98	387.5	56.7	126.1		2 Francis
AK	PEX-093	Apiaka-Kayabi	rio dos Peixes	Inventory	Variation	-10.9415464063	-57.3232138163	11172	33.0	13.0	65.5	284	820.0	206.0	98	214.5	162.3	360.6		2 Francis
BC		Barra do Claro	rio Arinos	Inventory	R-o/R	-13.4112494636	-56.5812503367	9022	69.3	433.1	18.0	290.0	1300.0	61.0	90	272.0	121.2	404.0		3 Kaplan
BUR	BUR-013	Buriiti	rio Buriiti	Suspended	R-o/R	-12.8745223630	-58.3987502640	3635	15.0		57.0	332	538.0	86.0	98	313.9	81.4	180.9		2 Francis
CC	JMX-044	Cachoeira do Cai	rio Jamaxim	Feasibility study registered	Variation	-5.0850434493	-56.4670836746	56661	420.0	3418.1	34.5	89.0	893	802.0	92	51.00	800.1	2,666.90	5	Kaplan
CP	JMX-212	Cachoeira dos Patos	rio Jamaxim	Feasibility study registered	Variation	-5.9170830973	-55.7599554806	38758	116.5	696.8	33.0	180.0	2,370	528.0	92	143.50	549.3	1,831.10	3	Kaplan
CHA	TPJ-699	Chacorao	rio Tapajos	Inventory	R-o/R	-6.5097017064	-58.3055355671	346861	616.2	4.0	40.0	100.0	1667.4	3336.0	92	70.4	4286.4	14288.0		21 Kaplan
EN	JRN-720	Enawenê-Nawê	rio Juruena	Inventory	R-o/R	-12.1811254213	-58.8177928217	28567	80.0		17.5	275.0	1200	214.0	98	253.5	450.3	1500.9		4 Bulbo
ERI	JRN-530	Erikpatsa	rio Juruena	Inventory	R-o/R	-11.0293207310	-58.3748457608	58142	90.0	726.0	32.5	244.5	1552.0	583.0	98	217.0	827	2757		4 Kaplan
ESC	JRN-277	Escondido	rio Juruena	Inventory	R-o/R	-9.1848550624	-58.6537502538	161257	1029.0	7.5	20.5	204.0	2945.0	1248.0	98	174.5	1996	6654		10 Kaplan
FON	JRN-577	Fontanilhas	rio Juruena	Inventory	Variation	-11.3399545079	-58.3370835998	57521	563.0		13.0	257.5	360.0	284.0	98	240.5	798.9	2663.1		5 Bulbo
FA	API-006	Foz do Apiacas	rio Apiacas	Feasibility study in process	R-o/R	-9.2062496322	-57.0881193855	16024	59.5	5945.0	56.4	189.0	361.0	275.0	88	140.0	326.5	725.6		2 Francis
FB	PPG-115	Foz do Buriiti	rio Papagaio	Inventory	R-o/R	-12.7609447017	-58.3979169307	15865	22.0		15.0	272.5	1185.0	104.0	98	250.3	203.6	678.8		2 Kaplan
FFB	JUL-029b	Foz do Formiga Baixo	rio Juína	Feasibility study registered	R-o/R	-12.7941747308	-59.0766754778	7868	26.0	225.0	49.5	351.5	1245.0	150.0	98	302.0	169.5	376.6		2 Francis
FS	PPG-147	Foz do Sacre	rio Papagaio	Inventory	R-o/R	-12.9196336863	-58.2946344709	11510	21.0	275.0	36.0	308.5	715.0	163.8	98	269.8	151.4	504.82		2 Kaplan
JAC	JUL-048	Jacare	rio Juína	Inventory	Variation	-12.9045828178	-59.2074834005	5637	109.0	609.0	40.5	386.5	1110.0	63.4	98	347.0	63.9	213.1		2 Kaplan
JAM	JMX-171	Jamaxim	rio Jamaxim	Feasibility study registered	Variation	-5.6579164409	-55.8743442759	39888	74.5	1004.8	57.5	147.0	1,205	881.0	92	85.30	778.14	1,729.20	3	Francis
JO	JMX-259	Jardim do Ouro	rio Jamaxim	Inventory	Variation	-6.2639864648	-55.7668469883	37456	426.1	1977.6	14.0	194.0	1,117	227.0	92	172.00	516.8	1,722.70	4	Bulbo
MAG	TPR-1230	Magessi	rio Teles Pires	Feasibility study registered	R-o/R	-13.5808425921	-55.2641572556	10864	60.0		13.5	362.0	733.0	53.0	87	341.0	111.8	372.8		2 Kaplan
MAT	SAC-014	Matrinxã	rio Sacre	Inventory	R-o/R	-12.9812494808	-58.2037502718	6987	0.9		17.4	328.4	290.0	49.0	98	307.0	91.9	306.4		2 Kaplan
NAM	JUL-008	Nambikwara	rio Juína	Feasibility study registered	R-o/R	-12.6879161593	-58.9813103502	8229	5.0	18.0	38.0	353.5	1195.0	102.7	98	271.0	110.7	368.9		2 Kaplan
POC	JUL-117	Pocilga	rio Juína	Inventory	Variation	-13.3714031099	-59.3969299136	3278	1.0	8.0	42.5	429.0	935.0	48.2	98	382.5	41.1	137.0		2 Kaplan
SAB	JRN-234b	Salto Augusto Baixo	rio Juruena	Feasibility study	R-o/R	-8.8870829783	-58.5564802511	172881	107.0	362.0	25.0	183.5	1555.0	1461.0	98	148.6	1902.6	6341.9		9 Kaplan
SU	PPG-159	Salto do Utiariti	rio Papagaio	Inventory	Variation	-13.0280418078	-58.2810689292	4367	2.0	3.0	73.5	382	4150.0	107.4	98	364.9	78.5	174.4		2 Francis
SSA	JRN-117a	São Simão alto	rio Juruena	Feasibility study registered	R-o/R	-8.2250053353	-58.3254169336	175606	284.0	659.0	52.5	159	1645.0	3509.0	98	102.0	3434.4	7632.0		13 Francis
TAP	SAN-020	Tapires	rio do Sangue	Inventory	R-o/R	-11.0630048107	-58.2538388558	29371	45.0		8.0	229	964.0	75.0	98	198.4	342.9	1143.1		2 Bulbo
TIR	BUR-039	Tireatinga	rio Buriiti	Suspended	Variation	-12.9958120778	-58.4633128574	3405	32.0		38.0	370	872.0	46.0	98	331.5	60.2	133.8		2 Francis
TI	ARN-026	Travesso dos Indios	rio Arinos	Inventory	Variation	-10.5595829116	-58.1782872174	57908	243.0	1.1	18.5	219.0	735.0	252.0	98	200.0	633.4	2111.2		4 Bulbo
TU	JRN-466	Tucumã	rio Juruena	Feasibility study registered	R-o/R	-10.5238848542	-58.3922188719	93703	220.0	1.1	17.0	221.0	800.0	633.0	98	200.0	1374	4580		9 Bulbo

(Kaplan/Bulbo = .30Qmax ; Francis = .45Qmax)

Supplementary Table 1.Continuation.

Name code	Storage pts (m3)	Area pts (ha)	Elevation	discharge
SLT	775010000, 2102090000, 4362710000, 6848560000, 7553830000, 11782260000	185.01, 354.97, 556.82, 688.43, 722.25, 975.45	Main: 7.10, 7.93, 8.70, 10.06, 10.65, 12.99, 15.67, 16.58, 17.40, 18.13; secondary: 23.54, 23.67, 23.93, 24.53, 24.83, 25.41, 25.89, 26.25, 26.47, 26.66, 27, 27.34	Main: 0, 1000, 2000, 4000, 5000, 10000, 20000, 25000, 30000, 35000; Secondary: 0, 807, 2384, 5537, 7114, 10268, 13272, 15983, 18026, 20275, 25454, 30000
CAS	4000000, 81000000, 316000000, 768000000, 1.6176225E9	500, 3000, 6600, 11700, 20150.00	211.22, 211.85, 212.16, 212.64, 213.36, 213.66, 214.89, 216.76, 219.57, 220.74, 225.58, 226.41	0,50,100,200,400,500,1000,2000,4000,5000,10000,11000
COL	0, 7850000, 97160000, 314770000, 693290000, 1072300000	0,81.5, 2984, 5883, 9394, 12332	240.86, 242.69, 243.53, 243.81, 244.07, 244.31, 244.76, 245.36, 245.72, 246.55, 247.29, 247.96	0, 250, 500, 600, 700, 800, 1000, 1300, 1500, 2000, 2500, 3000
JAT	242420000, 1198840000, 3392280000, 4014150000, 7267430000	102.45, 296.97, 597.77, 646.3, 992.68	47.41, 48, 48.67, 49.41, 5, 50.14, 50.83, 51.54, 52.27, 52.64, 53.36, 54.43	0,00, 2,617, 5893, 9,168,00, 10,806, 12373, 15483, 18879, 22551, 24488, 28560, 35151
SA	0, 209353, 682131, 2080000, 3864537	0, 16, 47, 75, 94.4	221	
SM	0, 4530000, 33100000, 104260000, 226650000, 423260000, 474710000	0, 272, 938, 1972, 2957, 4996, 5295	128.76, 132.26, 133.1, 133.82, 135.05, 136.09, 137.87, 139.38, 140.73, 141.95, 143.09, 144.15	0,500,750,1000,1500,2000,3000,4000,5000,6000,7000,8000
SI	0, 0, 27830000, 157330000, 437210000, 926380000, 1648E10+6, 2951E10+6, 3.81881469E9	0, 12, 1497, 3887, 7505, 12255, 18348, 32957, 40206.90	264.58, 266.87, 267.64, 267.88, 268.1, 268.31, 268.67, 269.15, 269.43, 270.05, 270.59, 271.06	0, 250, 500, 600, 700, 800, 1000, 1300, 1500, 2000, 2500, 3000
TP	0, 970000, 2590000, 4730000, 7970000, 12560000, 19560000, 32040000, 62590000, 131370000, 263820000, 511700000, 975*10E+6, 1.258125223E9	0, 28, 37, 49, 82, 102, 185, 316, 965, 1833, 3560, 6502, 12342, 64238.54	140.83, 154.49, 156, 157.18, 158.98, 160.39, 162.27, 163.51, 164.54, 165.42, 166.2, 166.9	0,50,750,1000,1500,2000,3000,4000,5000,6000,7000,8000
AQ	0, 3000000, 11000000, 25000000, 50000000, 90000000, 148000000, 229000000, 340000000, 487000000, 672000000	0, 98, 197, 408, 632, 959, 1361, 1959, 2590, 2592, 3359, 4135	363, 365, 366.3, 367.3, 368, 368.7, 369.4	20, 50, 100, 150, 200, 250, 300
AK	362000000, 601000000	6600	208.8, 210.3, 210.94, 211.85, 213.14, 213.66, 215.72, 218.65, 222.82, 224.5, 231.15, 232.26	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 10000, 11000
BC	45140000, 172810000, 433090000, 871770000, 1535550000	1597.5, 3648.6, 6927, 10748.9, 15974.3	272.03, 271.70, 271.38, 271.04, 270.68	404, 363.6, 323.2, 282.8, 242.4
BUR	2000000, 5000000, 11000000, 19000000, 30000000, 45000000, 66000000, 95000000, 135000000, 188000000, 259000000, 357000000	0, 75, 125, 175, 225, 400, 500, 700, 900, 1200, 1700, 2200	270	
CC	557390000, 980320000, 1813080000, 3015650000, 3418080000, 6047550000	5704, 11554, 22345, 38512, 42000, 63944	45.45, 45.6, 45.74, 46.02, 46.55, 46.81, 47.99, 49.93, 52.75, 53.92, 59.46, 60.26	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 10000, 11000
CP	37530000, 82610000, 230044000, 588520000, 696840000, 1.111299133E9	395, 1532, 4646, 10035, 11650, 17992.19	138.48, 138.67, 138.86, 139.22, 139.9, 140.22, 141.62, 143.77, 146.94, 148.47, 149.97, 151.55	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 6000, 7333
CHA	3.37E+08, 1.03E+09, 1.96E+09, 3.49E+09, 3.49E+09, 4.00E+09	11641, 16143, 21115, 41382, 61623	62.97, 66.45, 67.37, 68.36, 69.36, 70.35, 71.31, 72.27, 73.27, 74.22, 75.22, 76.17	0, 2573.0, 4013.7, 5747.3, 7.768.7, 10071.9, 12652.0, 15505.1, 18627.4, 22015.9, 25667.6, 29580.0
EN	1000000, 19000000, 113000000, 371000000, 833000000, 1512000000	100, 700, 3300, 7200, 11400, 15900	253	
ERI	4.00E+06, 4.90E+07, 1.52E+08, 3.50E+08, 6.84E+08	500, 1300, 2900, 5100, 8300	211.40, 212.58, 213.01, 213.60, 214.40, 214.72, 215.94, 217.61, 219.89, 220.79, 224.24, 224.81	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 10000, 11000
ESC	1.20E+07, 2.06E+08, 1.10E+09, 3.42E+09, 7.51E+09	1500, 6900, 31800, 62600, 102900	176.11, 176.24, 176.33, 176.47, 176.70, 176.80, 177.24, 177.95, 179.12, 179.63, 181.85, 182.25	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 10000, 11000
FON	1000000, 412000000, 2088000000, 4851000000	100, 23100, 45200, 65900	238.5	
FA	0, 210000, 6770000, 21490000, 45350000, 80960000, 131070000, 202440000, 306020000, 463450000, 7.08E10+6	0, 64, 212, 385, 575, 858, 1154, 1720, 2445, 3910, 5945	132.23, 135.37, 136.44, 137.89, 138.95, 139.83, 140.58, 141.26, 142.43, 143.45, 144.77, 146.63	0, 50, 100, 200, 300, 400, 500, 600, 800, 1000, 1300, 1800
FB	0, 8000000, 29000000, 75000000, 164000000, 316000000	0, 100, 300, 600, 1200, 2200	251	
FFB	396000000, 620000000, 932000000, 1401000000, 2169000000, 3025000000, 4096000000, 5435000000	0, 1, 10, 50, 100, 300, 900, 1700, 2700, 3700, 5300, 7300, 11600, 15300, 19000, 23900, 29700	296.41, 300.08, 301.07, 302.33, 303.93, 304.53, 306.73, 309.52, 313.07, 314.4, 319.27, 320.03	
FS	0, 4000000, 16000000, 37000000, 72000000, 122000000, 192000000, 286000000	0, 100, 300, 600, 800, 1200, 1600, 2200	264.23, 266.88, 267.43, 268.09, 268.9, 269.19, 270.22, 271.47, 272.98, 273.53, 275.47, 275.76	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 10000, 11000
JAC	0, 5000000, 31000000, 103000000, 273000000, 579000000, 995000000, 1544000000	0, 200, 900, 2000, 5100, 7200, 9500, 12600	343.76, 347.88, 348.99, 350.4, 352.2, 352.88, 355.34, 358.47, 362.45, 363.95, 369.41, 370.26	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 10000, 11000
JAM	1.29E+08, 2.23E+08, 3.02E+08, 3.31E+08, 3.62E+08, 5.51E+08, 8.05E+08, 1.00E+09, 1.262801414E9	1444, 2366, 2893, 3025, 3201, 4356, 5875, 7445, 8862.00	79.89, 80.13, 80.36, 80.81, 81.64, 82.04, 83.76, 86.38, 90.19, 92.04, 94.76, 96.16	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 6500, 7550
JO	0, 5880000, 94730000, 564540000, 1977590000, 5252340000	404, 794, 4071, 16037, 42606, 91456	171.47, 171.58, 171.68, 171.88, 172.26, 172.98, 173.31, 174.75, 176.86, 179.9, 181.41, 184.12	0, 25, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 7100
MAG	0, 380000000, 4.6E8	0, 6000, 7263.35	334.46, 337.34, 338.12, 339.11, 340.36, 341.25, 341.96, 342.56, 343.08, 343.55, 344.78, 345.72	0, 25, 50, 100, 200, 300, 400, 500, 600, 700, 1000, 1300
MAT	1000000, 500000, 1800000, 5200000	0, 10, 40, 90	306	
NAM	0, 1000000, 3000000, 6000000, 12000000, 19000000, 31000000, 54000000, 91000000	0, 50, 100, 130, 160, 200, 300, 600, 900	265.45, 269.06, 270.04, 271.28, 272.86, 273.45, 275.61, 278.36, 281.85, 283.17, 287.96, 288.71	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 10000, 11000
POC	0, 10, 1000000, 3000000, 8000000, 22000000	0, 1, 10, 100, 101, 500	376.58, 381.54, 382.89, 384.59, 386.76, 387.57, 390.54, 394.32, 399.12, 400.92, 407.5, 408.54	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 10000, 11000
SAB	0.00,	0.00,	141.85, 144.03, 144.69, 145.55, 146.68, 147.11, 148.71, 150.79, 153.51, 154.55, 158.42,	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 10000, 11000
SU	500000, 9000000	21.8, 387.9	301.51, 304.12, 304.46, 304.84, 305.28, 305.43, 305.94, 306.52, 307.18, 307.41, 308.18, 308.29	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 10000, 11000
SSA	2000000, 34000000, 125000000, 270000000, 468000000, 748000000, 1184000000, 1827000000, 2717000000, 3956000000, 5556000000	200, 1200, 2400, 3400, 4600, 6600, 11000, 14800, 20900, 28900, 35200	96.20, 96.54, 96.73, 97.01, 97.43, 97.61, 98.35, 99.49, 101.22, 101.95, 104.97, 105.49	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 10000, 11000
TAP	0, 22000000, 158000000	0, 1300, 4400	215.4	
TIR	491000000	0, 100, 200, 400, 800, 1300, 2100, 3000, 4000	327	
TI	18000000, 323000000, 1258000000	2100, 11300, 27300	198.19	
TU	1.20E+07, 1.92E+08, 7.58E+08, 1.95E+06	1400, 6400, 17100, 31200	193, 195.64, 196.15, 196.76, 197.49, 197.76, 198.68, 199.78, 201.1, 201.57, 203.24, 203.49	0, 50, 100, 200, 400, 500, 1000, 2000, 4000, 5000, 10000, 11000
Note			Two power houses in SST	

Supplementary Table 2. Results of the pair-wise Kolmogorov–Smirnov non-parametric test for mean mean daily generation per month.

Scenario compared		JANUARY					FEBRUARY					MARCH					APRIL				
Scenario 1	Scenario 2	mean_sim1	mean_sim2	diff	KS p-value	KS_sig	mean_sim 1	mean_sim 2	diff	KS p-value	KS_sig	mean_sim 1	mean_sim 2	diff	KS p-value	KS_sig	mean_sim1	mean_sim2	diff	KS p-value	KS_sig
biLU_rep45_RR	BL_RR	182724.39	336215.42	-153491	0	KS_test_SIG	260011.5	459578.2	-199566.7	0	KS_test_SIG	404011	497609	-93598.01	0	KS_test_SIG	483569.09	504244.9	-20675.81	0	KS_test_SIG
biLU_rep85_RR	BL_RR	185800.59	336215.42	-150414.8	0	KS_test_SIG	271480.3	459578.2	-188097.9	0	KS_test_SIG	402417.4	497609	-95191.66	0	KS_test_SIG	485555.92	504244.9	-18688.98	0	KS_test_SIG
GOV_rep45_RR	BL_RR	185928.23	336215.42	-150287.2	0	KS_test_SIG	273163.2	459578.2	-186415	0	KS_test_SIG	421717.3	497609	-75891.68	0	KS_test_SIG	494548.3	504244.9	-9696.6	0	KS_test_SIG
GOV_rep85_RR	BL_RR	193924.26	336215.42	-142291.2	0	KS_test_SIG	293120.2	459578.2	-166458	0	KS_test_SIG	423620.6	497609	-73988.44	0	KS_test_SIG	501132.69	504244.9	-3112.2	0.0013	KS_test_SIG
BL_MX	BL_RR	322259.5	336215.42	-13955.92	0.0321	KS_test_SIG	448663.5	459578.2	-10914.73	0	KS_test_SIG	487581.4	497609	-10027.67	0	KS_test_SIG	497250.87	504244.9	-6994.03	0	KS_test_SIG
biLU_rep45_MX	BL_RR	215451.57	336215.42	-120763.9	0	KS_test_SIG	263506.7	459578.2	-196071.5	0	KS_test_SIG	385752.6	497609	-111856.4	0	KS_test_SIG	471855.62	504244.9	-32389.27	0	KS_test_SIG
biLU_rep85_MX	BL_RR	215168.4	336215.42	-121047	0	KS_test_SIG	273827	459578.2	-185751.2	0	KS_test_SIG	386527.7	497609	-111081.4	0	KS_test_SIG	473993.23	504244.9	-30251.66	0	KS_test_SIG
GOV_rep45_MX	BL_RR	222588.98	336215.42	-113626.5	0	KS_test_SIG	264914.2	459578.2	-194664	0	KS_test_SIG	399866.2	497609	-97742.8	0	KS_test_SIG	482112.61	504244.9	-22132.29	0	KS_test_SIG
GOV_rep85_MX	BL_RR	223954.1	336215.42	-112261.3	0	KS_test_SIG	290045.4	459578.2	-169532.8	0	KS_test_SIG	408422.8	497609	-89186.23	0	KS_test_SIG	491704.87	504244.9	-12540.02	0	KS_test_SIG
biLUrep85_RR	biLU_rep45_RR	185800.59	182724.39	3076.2	0	KS_test_SIG	271480.3	260011.5	11468.82	3.00E-05	KS_test_SIG	402417.4	404011	-1593.65	0	KS_test_SIG	485555.92	483569.09	1986.83	0.0081	KS_test_SIG
GOV_rep45_RR	biLU_rep45_RR	185928.23	182724.39	3203.84	0	KS_test_SIG	273163.2	260011.5	13151.66	0	KS_test_SIG	421717.3	404011	17706.33	0	KS_test_SIG	494548.3	483569.09	10979.21	0	KS_test_SIG
GOV_rep85_RR	biLU_rep45_RR	193924.26	182724.39	11199.88	0	KS_test_SIG	293120.2	260011.5	33108.65	0	KS_test_SIG	423620.6	404011	19609.57	0	KS_test_SIG	501132.69	483569.09	17563.61	0	KS_test_SIG
BL_MX	biLU_rep45_RR	322259.5	182724.39	139535.1	0	KS_test_SIG	448663.5	260011.5	188652	0	KS_test_SIG	487581.4	404011	83750.34	0	KS_test_SIG	497250.87	483569.09	13681.78	0	KS_test_SIG
biLUrep45_MX	biLU_rep45_RR	215451.57	182724.39	32727.18	0	KS_test_SIG	263506.7	260011.5	3495.18	0.22452	KS_test_NONSIG	385752.6	404011	-18258.42	0	KS_test_SIG	471855.62	483569.09	-11713.47	0	KS_test_SIG
biLUrep85_MX	biLU_rep45_RR	215168.4	182724.39	32444.01	0	KS_test_SIG	273827	260011.5	13815.52	0	KS_test_SIG	386527.7	404011	-17483.35	0	KS_test_SIG	473993.23	483569.09	-9575.85	0	KS_test_SIG
GOV_rep45_MX	biLU_rep45_RR	222588.98	182724.39	39864.59	0	KS_test_SIG	264914.2	260011.5	4902.68	0.00034	KS_test_SIG	399866.2	404011	-4144.79	0	KS_test_SIG	482112.61	483569.09	-1456.48	0	KS_test_SIG
GOV_rep85_MX	biLU_rep45_RR	223954.1	182724.39	41229.72	0	KS_test_SIG	290045.4	260011.5	30033.89	0	KS_test_SIG	408422.8	404011	4411.78	0	KS_test_SIG	491704.87	483569.09	8135.79	0	KS_test_SIG
GOV_rep45_RR	biLU_rep85_RR	185928.23	185800.59	127.64	0	KS_test_SIG	273163.2	271480.3	1682.84	0	KS_test_SIG	421717.3	402417.4	19299.98	0	KS_test_SIG	494548.3	485555.92	8992.38	0	KS_test_SIG
GOV_rep85_RR	biLU_rep85_RR	193924.26	185800.59	8123.68	0	KS_test_SIG	293120.2	271480.3	21639.83	3.00E-05	KS_test_SIG	423620.6	402417.4	21203.23	0	KS_test_SIG	501132.69	485555.92	15576.77	0	KS_test_SIG
BL_MX	biLU_rep85_RR	322259.5	185800.59	136458.9	0	KS_test_SIG	448663.5	271480.3	177183.1	0	KS_test_SIG	487581.4	402417.4	85163.99	0	KS_test_SIG	497250.87	485555.92	11694.95	0	KS_test_SIG
biLU_rep45_MX	biLU_rep85_RR	215451.57	185800.59	29650.98	0	KS_test_SIG	263506.7	271480.3	-7973.64	0	KS_test_SIG	385752.6	402417.4	-16664.76	0	KS_test_SIG	471855.62	485555.92	-13700.3	0	KS_test_SIG
biLU_rep85_MX	biLU_rep85_RR	215168.4	185800.59	29367.81	0	KS_test_SIG	273827	271480.3	2346.7	0.79568	KS_test_NONSIG	386527.7	402417.4	-15889.7	0	KS_test_SIG	473993.23	485555.92	-11562.68	0	KS_test_SIG
GOV_rep45_MX	biLU_rep85_RR	222588.98	185800.59	36788.39	0	KS_test_SIG	264914.2	271480.3	-6566.14	0	KS_test_SIG	399866.2	402417.4	-2551.14	0	KS_test_SIG	482112.61	485555.92	-3443.31	0	KS_test_SIG
GOV_rep85_MX	biLU_rep85_RR	223954.1	185800.59	38153.52	0	KS_test_SIG	290045.4	271480.3	18565.07	0.00018	KS_test_SIG	408422.8	402417.4	6005.43	0	KS_test_SIG	491704.87	485555.92	6148.95	0	KS_test_SIG
GOV_rep45_RR	GOV_rep45_RR	193924.26	185928.23	7996.04	0	KS_test_SIG	293120.2	273163.2	19956.98	0	KS_test_SIG	423620.6	421717.3	1903.24	0	KS_test_SIG	501132.69	494548.3	6584.39	0	KS_test_SIG
BL_MX	GOV_rep45_RR	322259.5	185928.23	136331.3	0	KS_test_SIG	448663.5	273163.2	175500.3	0	KS_test_SIG	487581.4	421717.3	65864.01	0	KS_test_SIG	497250.87	494548.3	2702.57	0	KS_test_SIG
biLU_rep45_MX	GOV_rep45_RR	215451.57	185928.23	29523.34	0	KS_test_SIG	263506.7	273163.2	-9656.48	0	KS_test_SIG	385752.6	421717.3	-35964.75	0	KS_test_SIG	471855.62	494548.3	-22692.68	0	KS_test_SIG
biLU_rep85_MX	GOV_rep45_RR	215168.4	185928.23	29240.17	0	KS_test_SIG	273827	273163.2	663.86	0	KS_test_SIG	386527.7	421717.3	-35189.68	0	KS_test_SIG	473993.23	494548.3	-20555.07	0	KS_test_SIG
GOV_rep45_MX	GOV_rep45_RR	222588.98	185928.23	36660.75	0	KS_test_SIG	264914.2	273163.2	-8248.98	0.00503	KS_test_SIG	399866.2	421717.3	-21851.12	0	KS_test_SIG	482112.61	494548.3	-12435.69	0	KS_test_SIG
GOV_rep85_MX	GOV_rep45_RR	223954.1	185928.23	38025.88	0	KS_test_SIG	290045.4	273163.2	16882.23	0	KS_test_SIG	408422.8	421717.3	-13294.55	0	KS_test_SIG	491704.87	494548.3	-2843.43	0	KS_test_SIG
BL_MX	GOV_rep85_RR	322259.5	193924.26	128335.2	0	KS_test_SIG	448663.5	293120.2	155543.3	0	KS_test_SIG	487581.4	423620.6	63960.76	0	KS_test_SIG	497250.87	501132.69	-3881.82	0	KS_test_SIG
biLU_rep45_MX	GOV_rep85_RR	215451.57	193924.26	21527.3	0	KS_test_SIG	263506.7	293120.2	-29613.46	0	KS_test_SIG	385752.6	423620.6	-37867.99	0	KS_test_SIG	471855.62	501132.69	-29277.07	0	KS_test_SIG
biLU_rep85_MX	GOV_rep85_RR	215168.4	193924.26	21244.13	0	KS_test_SIG	273827	293120.2	-19293.12	5.00E-05	KS_test_SIG	386527.7	423620.6	-37092.93	0	KS_test_SIG	473993.23	501132.69	-27139.46	0	KS_test_SIG
GOV_rep45_MX	GOV_rep85_RR	222588.98	193924.26	28664.71	0	KS_test_SIG	264914.2	293120.2	-28205.96	0	KS_test_SIG	399866.2	423620.6	-23754.37	0	KS_test_SIG	482112.61	501132.69	-19020.08	0	KS_test_SIG
GOV_rep85_MX	GOV_rep85_RR	223954.1	193924.26	30029.84	0	KS_test_SIG	290045.4	293120.2	-3074.76	0.43328	KS_test_NONSIG	408422.8	423620.6	-15197.79	0	KS_test_SIG	491704.87	501132.69	-9427.82	0	KS_test_SIG
biLU_rep45_MX	BL_MX	215451.57	322259.5	-106807.9	0	KS_test_SIG	263506.7	448663.5	-185156.8	0	KS_test_SIG	385752.6	487581.4	-101828.8	0	KS_test_SIG	471855.62	497250.87	-25395.25	0	KS_test_SIG
biLU_rep85_MX	BL_MX	215168.4	322259.5	-107091.1	0	KS_test_SIG	273827	448663.5	-174836.4	0	KS_test_SIG	386527.7	487581.4	-101053.7	0	KS_test_SIG	473993.23	497250.87	-23257.63	0	KS_test_SIG
GOV_rep45_MX	BL_MX	222588.98	322259.5	-99670.52	0	KS_test_SIG	264914.2	448663.5	-183749.3	0	KS_test_SIG	399866.2	487581.4	-87715.13	0	KS_test_SIG	482112.61	497250.87	-15138.26	0	KS_test_SIG
GOV_rep85_MX	BL_MX	223954.1	322259.5	-98305.4	0	KS_test_SIG	290045.4	448663.5	-158618.1	0	KS_test_SIG	408422.8	487581.4	-79158.56	0	KS_test_SIG	491704.87	497250.87	-5546	0	KS_test_SIG
biLU_rep85_MX	biLU_rep45_MX	215168.4	215451.57	-283.17	0.015	KS_test_SIG	273827	263506.7	10320.34	0	KS_test_SIG	386527.7	385752.6	775.06	0	KS_test_SIG	473993.23	471855.62	2137.61	#####	KS_test_SIG
GOV_rep45_MX	biLU_rep45_MX	222588.98	215451.57	7137.41	0	KS_test_SIG	264914.2	263506.7	1407.5	0.00101	KS_test_SIG	399866.2	385752.6	14113.62	0	KS_test_SIG	482112.61	471855.62	10256.99	0	KS_test_SIG
GOV_rep85_MX	biLU_rep45_MX	223954.1	215451.57	8502.54	0	KS_test_SIG	290045.4	263506.7	26538.71	0	KS_test_SIG	408422.8	385752.6	22670.2	0	KS_test_SIG	491704.87	471855.62	19849.25	0	KS_test_SIG
GOV_rep45_MX	biLU_rep85_MX	222588.98	215168.4	7420.58	0	KS_test_SIG	264914.2	273827	-8912.84	1.00E-05	KS_test_SIG	399866.2	386527.7	13338.56	0	KS_test_SIG	482112.61	473993.23	8119.37	0	KS_test_SIG
GOV_rep85_MX	biLU_rep85_MX	223954.1	215168.4	8785.71	0	KS_test_SIG	290045.4	273827	16218.37	0.00035	KS_test_SIG	408422.8	386527.7	21895.14	0	KS_test_SIG	491704.87	473993.23	17711.64	0	KS_test_SIG
GOV_rep85_MX	GOV_rep45_MX	223954.1	222588.98	1365.13	0.0014	KS_test_SIG	290045.4	264914.2	25131.21	0	KS_test_SIG	408422.8	399866.2	8556.57	0	KS_test_SIG	491704.87	482112.61	9592.26	0	KS_test_SIG

Supplementary Table 2. Continuation

Scenario compared		SEPTEMBER					OCTOBER					NOVEMBER					DECEMBER				
Scenario 1	Scenario 2	mean_sim 1	mean_sim 2	diff	KS_p-value	KS_sig	mean_sim 1	mean_sim 2	diff	KS_p-value	KS_sig	mean_sim 1	mean_sim 2	diff	KS_p-value	KS_sig	mean_sim 1	mean_sim 2	diff	KS_p-value	KS_sig
biLU_rep45_RR	BL_RR	261686.2	232287.7	29398.51	0	KS_test_SIG	217489.7	207736.3	9753.43	0	KS_test_SIG	193527.1	193637.6	-110.5	0	KS_test_SIG	177082.7	211526	-34443.27	0	KS_test_SIG
biLU_rep85_RR	BL_RR	269082.4	232287.7	36794.67	0	KS_test_SIG	225525.1	207736.3	17788.86	0	KS_test_SIG	201353.4	193637.6	7715.86	0	KS_test_SIG	183678.6	211526	-27847.42	0	KS_test_SIG
GOV_rep45_RR	BL_RR	262616.8	232287.7	30329.09	0	KS_test_SIG	219936	207736.3	12199.76	0	KS_test_SIG	197237.5	193637.6	3599.93	0	KS_test_SIG	180589.5	211526	-30936.48	0	KS_test_SIG
GOV_rep85_RR	BL_RR	281514.9	232287.7	49227.17	0	KS_test_SIG	236914.7	207736.3	29178.4	0	KS_test_SIG	211851.9	193637.6	18214.35	0	KS_test_SIG	193347.2	211526	-18178.82	0	KS_test_SIG
BL_MX	BL_RR	238083.6	232287.7	5795.86	0.00227	KS_test_SIG	222131.6	207736.3	14395.38	0	KS_test_SIG	230109.5	193637.6	36471.91	0	KS_test_SIG	231495.8	211526	19969.82	0	KS_test_SIG
biLU_rep45_MX	BL_RR	266882.5	232287.7	34594.77	0	KS_test_SIG	222180.2	207736.3	14439.99	0	KS_test_SIG	202365.1	193637.6	8727.57	0	KS_test_SIG	206475.7	211526	-5050.31	0	KS_test_SIG
biLU_rep85_MX	BL_RR	273194.4	232287.7	40906.67	0	KS_test_SIG	231568.7	207736.3	23832.41	0	KS_test_SIG	207973.4	193637.6	14335.83	0	KS_test_SIG	215383.7	211526	3857.72	0	KS_test_SIG
GOV_rep45_MX	BL_RR	268424	232287.7	36136.26	0	KS_test_SIG	224682.6	207736.3	16946.31	0	KS_test_SIG	208614.3	193637.6	14976.76	0	KS_test_SIG	209317.3	211526	-2208.68	0	KS_test_SIG
GOV_rep85_MX	BL_RR	288341.9	232287.7	56054.19	0	KS_test_SIG	242812.6	207736.3	35076.32	0	KS_test_SIG	220325.5	193637.6	26687.91	0	KS_test_SIG	225838.2	211526	14312.19	0	KS_test_SIG
biLUrep85_RR	biLU_rep45_RR	269082.4	261686.2	7396.16	0.00874	KS_test_SIG	225525.1	217489.7	8035.43	3.00E-05	KS_test_SIG	201353.4	193527.1	7826.36	0	KS_test_SIG	183678.6	177082.7	6595.85	0	KS_test_SIG
GOV_rep45_RR	biLU_rep45_RR	262616.8	261686.2	930.58	0.00702	KS_test_SIG	219936	217489.7	2446.33	0.00041	KS_test_SIG	197237.5	193527.1	3710.42	7.00E-05	KS_test_SIG	180589.5	177082.7	3506.79	0	KS_test_SIG
GOV_rep85_RR	biLU_rep45_RR	281514.9	261686.2	19828.67	0	KS_test_SIG	236914.7	217489.7	19424.97	0	KS_test_SIG	211851.9	193527.1	18324.85	0	KS_test_SIG	193347.2	177082.7	16264.45	0	KS_test_SIG
BL_MX	biLU_rep45_RR	238083.6	261686.2	-23602.65	0	KS_test_SIG	222131.6	217489.7	4641.96	0	KS_test_SIG	230109.5	193527.1	36582.41	0	KS_test_SIG	231495.8	177082.7	54413.1	0	KS_test_SIG
biLUrep45_MX	biLU_rep45_RR	266882.5	261686.2	5196.26	0.05968	KS_test_NONSIG	222180.2	217489.7	4690.57	0.02489	KS_test_SIG	202365.1	193527.1	8838.07	0	KS_test_SIG	206475.7	177082.7	29392.97	0	KS_test_SIG
biLUrep85_MX	biLU_rep45_RR	273194.4	261686.2	11508.16	2.00E-05	KS_test_SIG	231568.7	217489.7	14078.99	0	KS_test_SIG	207973.4	193527.1	14446.33	0	KS_test_SIG	215383.7	177082.7	38300.99	0	KS_test_SIG
GOV_rep45_MX	biLU_rep45_RR	268424	261686.2	6737.75	0	KS_test_SIG	224682.6	217489.7	7192.88	0	KS_test_SIG	208614.3	193527.1	10807.25	0	KS_test_SIG	209317.3	177082.7	32234.59	0	KS_test_SIG
GOV_rep85_MX	biLU_rep45_RR	288341.9	261686.2	26655.68	0	KS_test_SIG	242812.6	217489.7	25322.89	0	KS_test_SIG	220325.5	193527.1	26798.4	0	KS_test_SIG	225838.2	177082.7	48755.47	0	KS_test_SIG
GOV_rep45_RR	biLU_rep85_RR	262616.8	269082.4	-6465.57	0.0107	KS_test_SIG	219936	225525.1	-5589.1	0.00211	KS_test_SIG	197237.5	201353.4	-4115.93	2.00E-05	KS_test_SIG	180589.5	183678.6	-3089.06	0	KS_test_SIG
GOV_rep85_RR	biLU_rep85_RR	281514.9	269082.4	12432.51	0	KS_test_SIG	236914.7	225525.1	11389.54	0	KS_test_SIG	211851.9	201353.4	10498.49	0	KS_test_SIG	193347.2	183678.6	9668.6	0	KS_test_SIG
BL_MX	biLU_rep85_RR	238083.6	269082.4	-30998.81	0	KS_test_SIG	222131.6	225525.1	-3393.47	2.00E-05	KS_test_SIG	230109.5	201353.4	28756.05	0	KS_test_SIG	231495.8	183678.6	47817.25	0	KS_test_SIG
biLU_rep45_MX	biLU_rep85_RR	266882.5	269082.4	-2199.9	0.39698	KS_test_NONSIG	222180.2	225525.1	-3344.86	0.01395	KS_test_SIG	202365.1	201353.4	1011.71	0.19116	KS_test_NONSIG	206475.7	183678.6	22792.12	0	KS_test_SIG
biLU_rep85_MX	biLU_rep85_RR	273194.4	269082.4	4112	0.39067	KS_test_NONSIG	231568.7	225525.1	6043.56	0.00063	KS_test_SIG	207973.4	201353.4	6619.97	0	KS_test_SIG	215383.7	183678.6	31705.14	0	KS_test_SIG
GOV_rep45_MX	biLU_rep85_RR	268424	269082.4	-658.41	0.085	KS_test_NONSIG	224682.6	225525.1	-842.55	0.47491	KS_test_NONSIG	208614.3	201353.4	7260.99	0	KS_test_SIG	209317.3	183678.6	25638.74	0	KS_test_SIG
GOV_rep85_MX	biLU_rep85_RR	288341.9	269082.4	19259.52	0	KS_test_SIG	242812.6	225525.1	17287.46	0	KS_test_SIG	220325.5	201353.4	18972.05	0	KS_test_SIG	225838.2	183678.6	42159.62	0	KS_test_SIG
GOV_rep85_RR	GOV_rep45_RR	281514.9	262616.8	18998.08	0	KS_test_SIG	236914.7	219936	16978.64	0	KS_test_SIG	211851.9	197237.5	14614.43	0	KS_test_SIG	193347.2	180589.5	12757.66	0	KS_test_SIG
BL_MX	GOV_rep45_RR	238083.6	262616.8	-24533.24	0	KS_test_SIG	222131.6	219936	2195.62	0	KS_test_SIG	230109.5	197237.5	32871.99	0	KS_test_SIG	231495.8	180589.5	50906.31	0	KS_test_SIG
biLU_rep45_MX	GOV_rep45_RR	266882.5	262616.8	4265.68	0.41155	KS_test_NONSIG	222180.2	219936	2244.23	0.23811	KS_test_NONSIG	202365.1	197237.5	5127.64	0	KS_test_SIG	206475.7	180589.5	25886.18	0	KS_test_SIG
biLU_rep85_MX	GOV_rep45_RR	273194.4	262616.8	10577.58	0.00031	KS_test_SIG	231568.7	219936	11632.65	0	KS_test_SIG	207973.4	197237.5	10735.99	0	KS_test_SIG	215383.7	180589.5	34794.2	0	KS_test_SIG
GOV_rep45_MX	GOV_rep45_RR	268424	262616.8	5807.17	0.04025	KS_test_SIG	224682.6	219936	4746.55	0.01213	KS_test_SIG	208614.3	197237.5	11376.83	0	KS_test_SIG	209317.3	180589.5	28727.8	0	KS_test_SIG
GOV_rep85_MX	GOV_rep45_RR	288341.9	262616.8	25725.09	0	KS_test_SIG	242812.6	219936	22876.56	0	KS_test_SIG	220325.5	197237.5	23087.98	0	KS_test_SIG	225838.2	180589.5	45248.68	0	KS_test_SIG
BL_MX	GOV_rep85_RR	238083.6	281514.9	-43431.32	0	KS_test_SIG	222131.6	236914.7	-14783.02	0	KS_test_SIG	230109.5	211851.9	18257.56	0	KS_test_SIG	231495.8	193347.2	38148.65	0	KS_test_SIG
biLU_rep45_MX	GOV_rep85_RR	266882.5	281514.9	-14632.4	0	KS_test_SIG	222180.2	236914.7	-14734.41	0	KS_test_SIG	202365.1	211851.9	-9486.79	0	KS_test_SIG	206475.7	193347.2	13128.52	0	KS_test_SIG
biLU_rep85_MX	GOV_rep85_RR	273194.4	281514.9	-8320.5	0	KS_test_SIG	231568.7	236914.7	-5345.98	0	KS_test_SIG	207973.4	211851.9	-3878.52	0	KS_test_SIG	215383.7	193347.2	22036.54	0	KS_test_SIG
GOV_rep45_MX	GOV_rep85_RR	268424	281514.9	-13090.91	0	KS_test_SIG	224682.6	236914.7	-12232.09	0	KS_test_SIG	208614.3	211851.9	-3237.6	0	KS_test_SIG	209317.3	193347.2	15970.14	0	KS_test_SIG
GOV_rep85_MX	GOV_rep85_RR	288341.9	281514.9	6827.01	0.04678	KS_test_SIG	242812.6	236914.7	5897.92	0.00224	KS_test_SIG	220325.5	211851.9	8473.55	0	KS_test_SIG	225838.2	193347.2	32491.02	0	KS_test_SIG
biLU_rep45_MX	BL_MX	266882.5	238083.6	28798.91	0	KS_test_SIG	222180.2	222131.6	48.61	0	KS_test_SIG	202365.1	230109.5	-27744.34	0	KS_test_SIG	206475.7	231495.8	-25020.13	0	KS_test_SIG
biLU_rep85_MX	BL_MX	273194.4	238083.6	35110.81	0	KS_test_SIG	231568.7	222131.6	9437.03	0	KS_test_SIG	207973.4	230109.5	-22136.08	0	KS_test_SIG	215383.7	231495.8	-16112.1	0	KS_test_SIG
GOV_rep45_MX	BL_MX	268424	238083.6	30340.4	0	KS_test_SIG	224682.6	222131.6	2550.93	1.00E-05	KS_test_SIG	208614.3	230109.5	-21495.16	0	KS_test_SIG	209317.3	231495.8	-22178.51	0	KS_test_SIG
GOV_rep85_MX	BL_MX	288341.9	238083.6	50258.33	0	KS_test_SIG	242812.6	222131.6	20680.94	0	KS_test_SIG	220325.5	230109.5	-9784	0	KS_test_SIG	225838.2	231495.8	-5657.63	0	KS_test_SIG
biLU_rep85_MX	biLU_rep45_MX	273194.4	266882.5	6311.9	0.03505	KS_test_SIG	231568.7	222180.2	9388.42	0	KS_test_SIG	207973.4	202365.1	5608.26	6.00E-05	KS_test_SIG	215383.7	206475.7	8908.03	0	KS_test_SIG
GOV_rep45_MX	biLU_rep45_MX	268424	266882.5	1541.49	0.00297	KS_test_SIG	224682.6	222180.2	2502.32	0.00104	KS_test_SIG	208614.3	202365.1	6249.19	0	KS_test_SIG	209317.3	206475.7	2841.62	0	KS_test_SIG
GOV_rep85_MX	biLU_rep45_MX	288341.9	266882.5	21459.42	0	KS_test_SIG	242812.6	222180.2	20632.33	0	KS_test_SIG	220325.5	202365.1	17960.34	0	KS_test_SIG	225838.2	206475.7	19362.5	0	KS_test_SIG
GOV_rep45_MX	biLU_rep85_MX	268424	273194.4	-4770.41	0.01688	KS_test_SIG	224682.6	231568.7	-6886.1	6.00E-04	KS_test_SIG	208614.3	207973.4	640.93	0.28987	KS_test_NONSIG	209317.3	215383.7	-6066.4	0	KS_test_SIG
GOV_rep85_MX	biLU_rep85_MX	288341.9	273194.4	15147.52	0	KS_test_SIG	242812.6	231568.7	11243.9	0	KS_test_SIG	220325.5	207973.4	12352.08	0	KS_test_SIG	225838.2	215383.7	10454.47	0	KS_test_SIG
GOV_rep85_MX	GOV_rep45_MX	288341.9	268424	19917.93	0	KS_test_SIG	242812.6	224682.6	18130.01	0	KS_test_SIG	220325.5	208614.3	11711.15	0	KS_test_SIG	225838.2	209317.3	16520.88	0	KS_test_SIG

Supplementary Table 3. Results of pair-wise t-test for minimum production month among scenarios.

sim_1	mean_sim1	sim_2	mean_sim2	diff	T_p-value	T_sig
bILU_rcp45_RR	5329518.5	BL_RR	5800365.52	-470847.1	0.00201	T_test_SIG
bILU_rcp85_RR	5439201.9	BL_RR	5800365.52	-361163.7	0.02303	T_test_SIG
GOV_rcp45_RR	5422276	BL_RR	5800365.52	-378089.5	0.07009	T_test_NONSIG
GOV_rcp85_RR	5695975.2	BL_RR	5800365.52	-104390.3	0.60659	T_test_NONSIG
BL_MX	6676409.1	BL_RR	5800365.52	876043.57	1.00E-05	T_test_SIG
bILUrcp45_MX	5925303.1	BL_RR	5800365.52	124937.57	0.40855	T_test_NONSIG
bILUrcp85_MX	5975860.8	BL_RR	5800365.52	175495.24	0.35149	T_test_NONSIG
GOV_rcp45_MX	6133839.6	BL_RR	5800365.52	333474.1	0.11169	T_test_NONSIG
GOV_rcp85_MX	6253098.7	BL_RR	5800365.52	452733.19	0.05783	T_test_NONSIG
bILU_rcp85_RR	5439201.9	bILU_rcp45_RR	5329518.48	109683.38	0.42995	T_test_NONSIG
GOV_rcp45_RR	5422276	bILU_rcp45_RR	5329518.48	92757.52	0.63074	T_test_NONSIG
GOV_rcp85_RR	5695975.2	bILU_rcp45_RR	5329518.48	366456.76	0.06254	T_test_NONSIG
BL_MX	6676409.1	bILU_rcp45_RR	5329518.48	1346890.6	0	T_test_SIG
bILUrcp45_MX	5925303.1	bILU_rcp45_RR	5329518.48	595784.62	7.00E-05	T_test_SIG
bILUrcp85_MX	5975860.8	bILU_rcp45_RR	5329518.48	646342.29	0.00075	T_test_SIG
GOV_rcp45_MX	6133839.6	bILU_rcp45_RR	5329518.48	804321.14	0.00024	T_test_SIG
GOV_rcp85_MX	6253098.7	bILU_rcp45_RR	5329518.48	923580.24	0.00025	T_test_SIG
GOV_rcp45_RR	5422276	bILU_rcp85_RR	5439201.86	-16925.86	0.93278	T_test_NONSIG
GOV_rcp85_RR	5695975.2	bILU_rcp85_RR	5439201.86	256773.38	0.20299	T_test_NONSIG
BL_MX	6676409.1	bILU_rcp85_RR	5439201.86	1237207.2	0	T_test_SIG
bILUrcp45_MX	5925303.1	bILU_rcp85_RR	5439201.86	486101.24	0.0018	T_test_SIG
bILUrcp85_MX	5975860.8	bILU_rcp85_RR	5439201.86	536658.9	0.00573	T_test_SIG
GOV_rcp45_MX	6133839.6	bILU_rcp85_RR	5439201.86	694637.76	0.00153	T_test_SIG
GOV_rcp85_MX	6253098.7	bILU_rcp85_RR	5439201.86	813896.86	0.00118	T_test_SIG
GOV_rcp85_RR	5695975.2	GOV_rcp45_RR	5422276	273699.24	0.25714	T_test_NONSIG
BL_MX	6676409.1	GOV_rcp45_RR	5422276	1254133.1	0	T_test_SIG
bILUrcp45_MX	5925303.1	GOV_rcp45_RR	5422276	503027.1	0.01542	T_test_SIG
bILUrcp85_MX	5975860.8	GOV_rcp45_RR	5422276	553584.76	0.01868	T_test_SIG
GOV_rcp45_MX	6133839.6	GOV_rcp45_RR	5422276	711563.62	0.00524	T_test_SIG
GOV_rcp85_MX	6253098.7	GOV_rcp45_RR	5422276	830822.71	0.00306	T_test_SIG
BL_MX	6676409.1	GOV_rcp85_RR	5695975.24	980433.86	4.00E-05	T_test_SIG
bILUrcp45_MX	5925303.1	GOV_rcp85_RR	5695975.24	229327.86	0.24878	T_test_NONSIG
bILUrcp85_MX	5975860.8	GOV_rcp85_RR	5695975.24	279885.52	0.21967	T_test_NONSIG
GOV_rcp45_MX	6133839.6	GOV_rcp85_RR	5695975.24	437864.38	0.07529	T_test_NONSIG
GOV_rcp85_MX	6253098.7	GOV_rcp85_RR	5695975.24	557123.48	0.03984	T_test_SIG
bILUrcp45_MX	5925303.1	BL_MX	6676409.1	-751106	3.00E-05	T_test_SIG
bILUrcp85_MX	5975860.8	BL_MX	6676409.1	-700548.3	0.00089	T_test_SIG
GOV_rcp45_MX	6133839.6	BL_MX	6676409.1	-542569.5	0.0148	T_test_SIG
GOV_rcp85_MX	6253098.7	BL_MX	6676409.1	-423310.4	0.08295	T_test_NONSIG
bILUrcp85_MX	5975860.8	bILU_rcp45_MX	5925303.1	50557.67	0.78039	T_test_NONSIG
GOV_rcp45_MX	6133839.6	bILU_rcp45_MX	5925303.1	208536.52	0.30189	T_test_NONSIG
GOV_rcp85_MX	6253098.7	bILU_rcp45_MX	5925303.1	327795.62	0.15575	T_test_NONSIG
GOV_rcp45_MX	6133839.6	bILU_rcp85_MX	5975860.76	157978.86	0.49137	T_test_NONSIG
GOV_rcp85_MX	6253098.7	bILU_rcp85_MX	5975860.76	277237.95	0.2759	T_test_NONSIG
GOV_rcp85_MX	6253098.7	GOV_rcp45_MX	6133839.62	119259.1	0.65458	T_test_NONSIG

Supplementary References

1. Soares-Filho, B. S. *et al.* Modelling conservation in the Amazon basin. *Nature* **440**, 520–523 (2006).