

Supplementary Information

Supplementary Table

Table S-1. Water quality parameters for surface water and shallow groundwater (in parenthesis) for wet and dry seasons: pH, conductivity (EC), turbidity (Turb), dissolved oxygen (DO), temperature (Temp), total solids (TS), total dissolved solids (TDS), suspended solids (SS), NH_4^+ , NO_3^- , Ca^{2+} , Mg^{2+} , HCO_3^- , Absorbance at 254 nm (Abs_{254}), total coliforms (TC) and thermo tolerant coliforms (TTC).

	Wet Season n = 5; (n = 10)					Dry Season n = 7; (n = 14)				
	Range [Min-Max]	Mean ± SD	Median	Percentile [25% - 75%]	%CV	Range [Min-Max]	Mean ± SD	Median	Percentile [25% - 75%]	%CV
pH	7.8-8.6	8.2±0.3	8.2	8.0-8.3	3.1	7.0-8.7	8.1±0.5	8.3	7.9-8.5	6.4
	(6.0-6.8)	(6.4±0.3)	(6.3)	(6.1-6.6)	(4.3)	(6.2-7.2)	(6.7±0.3)	(6.7)	(6.5-6.9)	(4.0)
EC	150-210	170±20	160	160-180	13.8	170-230	200±20	200	190-200	10
(µS/cm)	(240-1000)	(410±220)	(340)	(300-420)	(53.0)	(240-340)	(290±30)	(280)	(270-310)	(11.4)
Turb	2-900	405.2±469.4	19	8-900	115.8	0-70	8.7±21.6	1.5	1-3	248.7
(NTU)	(0-7)	(2.4±2.4)	(1.5)	(1-3)	(100.5)	(1-5)	(3.5±1.7)	(4)	(2-5)	(47.2)
DO	8.1-9.6	9.1±0.6	9.1	9.1-9.5	6.1	8.5-10.2	9.6±0.6	9.9	9.0-10.1	6.3
(mg/L)	(0.8-4.7)	(3.1±1.3)	(3.5)	(2.0-3.9)	(42.1)	(2.4-5.8)	(4.3±0.8)	(4.3)	(3.9-4.8)	(19.6)
Temp	15.2-23.6	17.4±2.8	16.3	15.7-18.2	16.0	10.1-18.0	12.5±2.9	11.3	11.0-12.2	23.3
(°C)	(14.7-21.2)	(19.5±1.9)	(20.19)	(18.8-20.5)	(9.59)	(17.6-19.6)	(18.6±0.6)	(18.6)	(18.2-19.1)	(3.1)
TS	92.2-3664.4	867.1±1247.3	113.3	111.1-825.6	143.9	106.7-160.0	131.1±17.4	131.1	116.7-141.1	13.2
(mg/L)	(142.2-817.8)	(303.1±190.9)	(253.1)	(222.2-316.7)	(63.0)	(160.0-230.0)	(197.1±25.2)	(196.7)	(175.6-221.1)	(12.8)
TDS	104.4-137.8	120.2±13.4	116.7	107.8-136.0	11.2	100.0-145.6	118.7±14.2	117.1	106.7-127.8	12
(mg/L)	(101.1-761.1)	(288.9±178.5)	(253.3)	(212.2-308.9)	(61.8)	(132-228)	(190.9±26.9)	(197.2)	(172.2-205.9)	(14.1)
SS	1-3527.8	746.9±1238.4	6.7	4.4-705.6	165.8	0.3-38	12.5±15.7	11.7	0.3-26.7	126.3
(mg/L)	(0.1-56.7)	(14.2±19.9)	(8.9)	(2.2-15)	(140.1)	(0.1-31.1)	(6.1±15.1)	(8.4)	(0.5-14.5)	(246.0)
NH₄⁺	0.05-0.24	0.11±0.05	0.1	0.09-0.11	48.7	0.02-0.13	0.06±0.04	0.04	0.03-0.09	66.2
(mg/L)	(0-0.19)	(0.09±0.07)	(0.09)	(0.02-0.18)	(77.0)	(0.02-0.48)	(0.14±0.13)	(0.1)	(0.05-0.15)	(95.7)
NO₃⁻	2.0-7.1	3.9±1.5	4.0	2.8-4.3	38.0	2.2-4.3	3.4±0.8	3.7	2.9-4.0	21.9
(mg/L)	(7.7-213.1)	(51.9±59.8)	(34.5)	(24.3-62.2)	(115.2)	(9.9-32.1)	(18.1±7.7)	(16.0)	(12.6-21.3)	(42.4)
Ca²⁺	9.2-26.4	19.6±5.2	20.4	17.2-21.6	26.4	19.6-30.8	26.0±3.4	26.4	24.8-27.2	12.9
(mg/L)	(29.6-103.2)	(47.7±20.3)	(41.8)	(40.4-44.8)	(42.6)	(31.2-48.0)	(38.7±4.8)	(39)	(35.6-41.2)	(12.4)

Mg²⁺	3.9-11.5	6.9±2.7	6.3	4.4-8.3	39.2	6.5-8.3	7.4±0.6	7.4	7.1-7.8	7.7
(mg/L)	(7.6-22.7)	(11.4±4.6)	(10.0)	(8.1-13.4)	(40.0)	(7.8-12.2)	(9.6±1.3)	(9.4)	(8.5-10.1)	(13.2)
HCO₃⁻	69.1-102.5	87.1±11.3	89.1	77.1-90.4	13.0	80.5-124.4	106.8±14.0	109.8	100.0-117.1	13.1
(mg/L)	(117.1-207.4)	(150.4±23.6)	(149.1)	(138.2-156.2)	(15.7)	(119.6-183)	(141.5±16.2)	(143.4)	(125.6-145.2)	(11.5)
TC	430-2.0×10 ⁶	2.5×10 ⁵ ±6.5×10 ⁵	4.3×10 ⁴	1.5×10 ⁴ -7.5×10 ⁴	257.5	150-1.5×10 ⁵	2.1×10 ⁴ ±4.8×10 ⁴	750	340-9.3×10 ³	228.3
(MPN/100mL)	(430-1.5×10 ⁶)	(2.3×10 ⁵ ±5.0×10 ⁵)	(9.3×10 ³)	(2.3×10 ³ -7.5×10 ⁴)	(217.7)	(230-4.6×10 ⁵)	(4.6×10 ⁴ ±1.3×10 ⁵)	(4.3×10 ³)	(430-9.3×10 ³)	(276.2)
TTC	36-4.3×10 ⁴	1.0×10 ⁴ ±1.9×10 ⁴	430	91-4.3×10 ³	183.7	0-4.3×10 ³	470±1.3×10 ³	36	30-91	283.8
(MPN/100mL)	(36-9.3×10 ⁵)	(1.1×10 ⁵ ±3.1×10 ⁵)	(1.5×10 ³)	(230-9.3×10 ³)	(289.9)	(36-9.3×10 ⁴)	(1.2×10 ⁴ ±2.7×10 ⁴)	(430)	(230-930)	(228.1)
Abs₂₅₄	1.03-3.30	1.75±0.82	1.48	1.29-1.95	46.7	0.27-1.31	0.78±0.37	0.79	0.56-0.97	47.8
(mg/L)	(1.03-10.31)	(3.33±3.48)	(2.33)	(1.28-2.68)	(104.71)	(0.93-2.50)	(1.27±0.52)	(1.06)	(1.01-1.23)	(40.6)

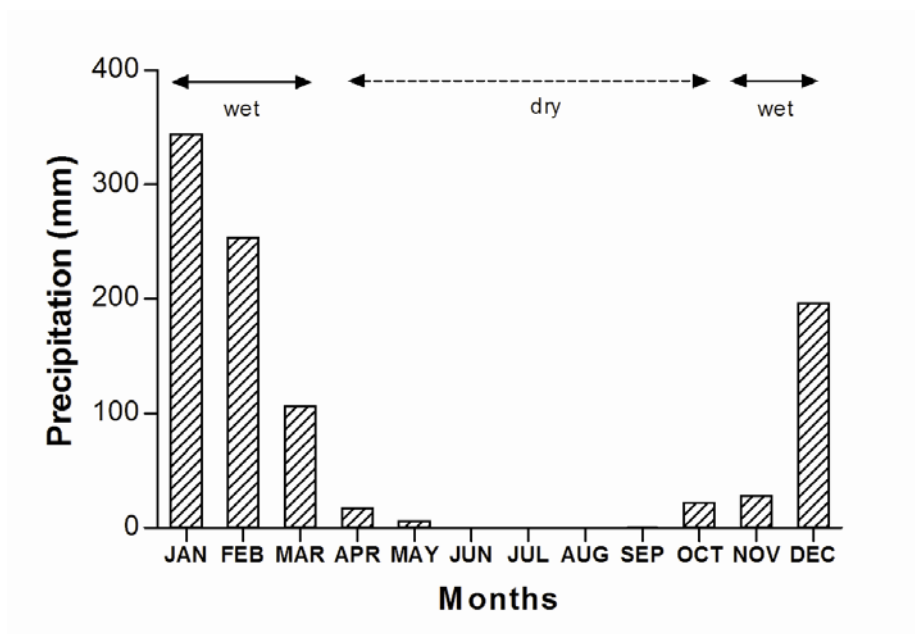


Figure S-1. Monthly variation in average rainfall volume in the study area. Source: National Institute of Agricultural Technology (INTA)