

Table 1 General soil characteristics and concentrations (g kg<sup>-1</sup> soil) of total organic carbon (TOC), total Fe, Al, P, and Si in bulk S1-1, 1-2, 1-3 (Cambisol), S2 (Stagnic Cambisol), and S3-1, 3-2 and 3-3 (Stagnosol).

Soil	pH <sup>1</sup>	Water content (%)	TOC (g kg <sup>-1</sup> )	Fe*(g kg <sup>-1</sup> )	Al (g kg <sup>-1</sup> )	P (g kg <sup>-1</sup> )	Si (g kg <sup>-1</sup> )
S1-1	4.98	43.1	33.2	23.1	53.1	1.3	318
S1-2	4.76	48.5	35.9	24.1	55.3	1.2	313
S1-3	4.96	47.8	37.8	21.9	49.5	1.1	328
S2	4.90	45.3	35.8	24.0	54.0	1.3	320
S3-1	5.59	54.2	72.8	12.9	40.0	1.5	308
S3-2	5.26	55.1	55.3	12.4	37.9	1.7	326
S3-3	5.23	67.8	85.3	13.2	38.2	2.2	303

<sup>1</sup>The mass ratio of soil : water = 1:2.5.

Table 2 Concentrations (mg kg<sup>-1</sup> soil) of P, Al, Fe, and Si in soil water extracts < 450 nm, < 300 kDa, and < 3 kDa, respectively.

Soil	P (mg kg <sup>-1</sup> )			Al (mg kg <sup>-1</sup> )			Fe (mg kg <sup>-1</sup> )			Si (mg kg <sup>-1</sup> )		
	<450nm	<300kDa	<3kDa	<450nm	<300kDa	<3kDa	<450nm	<300kDa	<3kDa	<450nm	<300kDa	<3kDa
S1-1	0.28	0.12	0.224	2.416	0.592	0.5832	2.504	0.1824	0.1808	8.8	7.136	6.64
S1-2	0.24	0.088	0.096	2.032	0.5464	0.56	2.12	0.124	0.152	7.68	6.56	6.24
S1-3	0.384	0.48	0.128	1.672	0.5888	0.624	1.528	0.1568	0.1576	7.84	6.8	7.04
S2	1.3	0.5	0.4	7.3	1.1	1.1	9.2	0.4	0.4	14.1	7.3	7.8
S3-1	2.264	0.504	1.28	7.6	0.7584	0.6936	8.4	0.3184	0.408	16	8.24	8.72
S3-2	4.56	3.472	4.528	2.4	0.6536	0.768	3.056	0.32	0.4824	13.44	11.36	12.08
S3-3	6.32	5.872	6.48	2.176	0.6832	0.784	2.392	0.472	0.552	14.48	12.32	13.52