

Supplementary Table S1. Nutrition parameters of disturbed and reference soils.

| Group | BioRepeat | TOC | pH | P | K | N- ammoniu m | N-nitrate |
|-------------------------|-----------|------|-----|-----|-----|--------------------|-----------|
| Quarry Clay | A | 1.45 | 6.8 | 42 | 369 | 98.6 | 15.2 |
| Quarry Clay | B | 1.56 | 7 | 7.3 | 337 | 44.3 | 1.59 |
| Quarry Clay | C | 1.21 | 6.9 | 36 | 885 | 93 | 12.4 |
| Primary Forest | A | 0.66 | 6.4 | 46 | 59 | 7.62 | 2.5 |
| Primary Forest | B | 0.87 | 5.9 | 52 | 188 | 10.3 | 2.24 |
| Primary Forest | C | 0.55 | 5.5 | 67 | 296 | 19.2 | 0.77 |
| Dumped Limestone | A | 1.22 | 7.3 | 4.7 | 785 | 3.76 | 0.73 |
| Dumped Limestone | B | 1.34 | 7.5 | 6.8 | 118 | 9.36 | 1.38 |
| Dumped Limestone | C | 1.12 | 7.4 | 2.1 | 240 | 4.26 | 4.65 |
| Secondary Forest | A | 1.45 | 7.3 | 3.4 | 205 | 13.4 | 10.6 |
| Secondary Forest | B | 1.65 | 7.2 | 1.3 | 188 | 17.5 | 1.08 |
| Secondary Forest | C | 1.45 | 7.2 | 3.4 | 181 | 15.7 | 1.08 |
| Reclamated Limestone | A | 1.65 | 7.2 | 0.9 | 77 | 19 | 8.52 |
| Reclamated Limestone | B | 1.66 | 7.1 | 4.7 | 146 | 44.3 | 7.86 |
| Reclamated Limestone | C | 1.7 | 7.1 | 3.4 | 216 | 37.9 | 5.24 |