Supplementary Table S1. Soil physio-chemical properties and heavy metal contents

Soil Analysis

Parameters	Pre-treatment	Post-treatment
pH	5.98±0.028	7.96±
Bulk Density mg/m^3	1.1±0.006	1.5±0.540
Particle Density mg/m^3	2.50±0.356	2.71±0.566
E.C (dSm^{-1})	2.06±0.013	2.15±0.246
Organic Carbon (%)	2.772±0.577	1.46±0.670
Silicon (%)	11.33±0.145	21.427±0.135
Calcium (Ca)	68±0.645	80±0.785
Total P (Phosphorous)	17±0.325	20±0.276
Total N (Nitrogen)	0.80±0.312	1.21±0.413
S (Sulphur)	29±0.654	34±2.55
Total K (Potassium) (%)	140±4.01	145±6.351
Cadmium (Cd) mg/kg	0.448±.0037	0.394±0.021
Cobalt (Co) mg/kg	0.537±.0265	0.502±0.0254
Chromium (Cr) mg/kg	0.135±0.0145	0.372±0.012
Copper (Cu) mg/kg	1.222±0.0064	1.272±0.0073
Lead (Pb) mg/kg	0.1791±0.015	0.1253±0.0201
Manganese (Mn) mg/kg	0.537±0.0062	0.0519±0.0251
Iron (Fe) mg/kg	1.868±0.7593	4.0279±0.8604
Zinc (Zn) mg/kg	4.535±0.571	13.679±0.0301

Supplementary Table S2. Operating conditions for the analysis of metals using flame atomic absorption spectrometry.

Element	Cd	Co	Cr	Cu	Pb	Fe	Mn	Zn
Wavelength (nm)	228.8	422.7	279.5	324.8	283.3	248.3	232	213.9
Detection limits (mg/kg)	0.001	0.007	0.012	0.01	0.04	0.036	0.012	0.052
Slit width (nm)	0.7	0.7	0.2	0.7	0.7	0.2	0.2	0.7
Lamp current low (mA)	8	10	12	6	10	12	12	8
Air flow rate (L/min)	15	15	15	15	15	15	15	15
Acetylene flow rate (L/min)	1.8	2.8	2.2	1.8	2	2.2	1.6	2
Burner height (mm)	7	9	9	7	7	9	7	7