**Supplementary Material**

**Table S1** Basic physicochemical properties of the four field-contaminated soils used in the pot experiment.

| Soils[a] | KM | JJ | DT | JJS |
|---|---|---|---|---|
| pH | 7.29±0.14 | 7.55±0.01 | 7.44±0.02 | 7.49±0.22 |
| Organic matter ($g \cdot kg^{-1}$) | 42.21±4.56 | 41.39±2.4 | 42.59±0.95 | 33.74±3.4 |
| Total N ($g \cdot kg^{-1}$) | 1.17±0.12 | 1.44±0.25 | 1.34±0.06 | 1.15±0.34 |
| Total K ($g \cdot kg^{-1}$) | 5.74±0.57 | 11.98±0.72 | 10.1±0.92 | 8.55±0.06 |
| Total P ($g \cdot kg^{-1}$) | 1.01±0.03 | 2.46±0.22 | 1.58±0.11 | 1.77±0.07 |
| Available N ($mg \cdot kg^{-1}$) | 11.24±2.75 | 31.01±7.19 | 9.36±2.14 | 18.73±5.62 |
| Available K ($mg \cdot kg^{-1}$) | 72.6±13.33 | 54.23±1.42 | 83.71±6.57 | 43.67±4.82 |
| Available P ($mg \cdot kg^{-1}$) | 10.67±3.78 | 31.62±2.5 | 37.72±3.5 | 17.08±0.21 |
| Total Cd ($mg \cdot kg^{-1}$) | 0.07±0.08 | 13.5±0.5 | 3.13±0.2 | 11.04±1.15 |
| Total Pb ($mg \cdot kg^{-1}$) | 95±9 | 1268±51 | 369±23 | 763±19 |
| Total Zn ($mg \cdot kg^{-1}$) | 129±5 | 2159±222 | 441±14 | 1103±35 |
| Total As ($mg \cdot kg^{-1}$) | 16±5 | 124±13 | 61±5 | 68±17 |

[a] Soils: KM, Chenggong District, Kunming City; JJ, Jijie Town, Gejiu City; DT, Datun Town, Gejiu City; JJS, Jiajieshan Village, Gejiu City. All soils were collected from Yunnan Province, China. Data are presented as means ± standard deviation (SD) (n=4).

**Table S2** The content of Cd in different soils.

| Cd content | Soils | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | KM | | | | | | JJ | DT | JJS |
| | CK | 10 ($mg \cdot kg^{-1}$) | 25 ($mg \cdot kg^{-1}$) | 50 ($mg \cdot kg^{-1}$) | 100 ($mg \cdot kg^{-1}$) | 175 ($mg \cdot kg^{-1}$) | | | |
| Total Cd | 0.07±0.08 | 10.21±0.51 | 25.74±1.53 | 50.41±4.04 | 98.74±2.08 | 171.32±4.04 | 13.5±0.5 | 3.13±0.2 | 11.04±1.15 |
| Cd-$CaCl_2$-extractable | 0.009±0.001 | 0.12±0.01 | 0.28±0.01 | 0.55±0.04 | 1.22±0.06 | 2.81±0.09 | 0.018±0.003 | 0.01±0.002 | 0.01±0.001 |
| TCLP-Cd | 0.02±0.02 | 3.44±0.17 | 9.47±0.03 | 18.46±0.33 | 23.39±0.27 | 44.84±0.21 | 2.40±0.40 | 0.45±0.02 | 1.35±0.03 |