

**Table S1.** Guideline values (mg/kg) to declare a soil as potentially polluted by legislations of different countries.

Element	Spain		China <sup>3</sup>	Canada <sup>4</sup>	Portugal <sup>5</sup>
	Andalusia <sup>1</sup>	Galicia <sup>2</sup>			
As	36	50	15	12	11
Cd	25	2 (1)	0.2	1.4	1
Cu	595	50	35	63	62
Pb	275	100 (80)	35	70	45
Zn	10,000	300 (200)	100	200	290

The value presented is the most restrictive by land use: Andalusia—other uses (generally, agricultural), Galicia—the same (in brackets ecosystem protection value), Canada—agricultural and/or residential/parkland use, Portugal—agricultural use and China—Level I soils.

<sup>1</sup> Generic Reference Value (NGR) for trace elements in the Region of Andalusia. BOJA (Boletín Oficial de la Junta de Andalucía). (2015). *Decreto 18/2015, por el que se aprueba el reglamento que regula el régimen aplicable a los suelos contaminados*. BOJA, 38, 28-64. [http://www.juntadeandalucia.es/medioambiente/web/2012\\_provisional/2015/reglamento\\_suelos\\_c](http://www.juntadeandalucia.es/medioambiente/web/2012_provisional/2015/reglamento_suelos_contaminados.pdf)ontaminados.pdf

<sup>2</sup> Generic Reference Value (NXR) for contaminants in the Region of Galicia. DOG (Diario Oficial de Galicia). (2009). *Decreto 60/2009, do 26 de febreiro, sobre solos potencialmente contaminados e procedemento para a declaración de solos contaminados*. DOG, 57, 5920-5936. <https://www.lex.gal/galilex/4384>

<sup>3</sup> Environmental quality standards for soils (HM) in China. MEEPRC (Ministry of Ecology and Environment of the People's Republic of China). (2018). *Soil Environmental Quality Risk. Control Standard for Soil Contamination of Agricultural Land* (GB 15618–2018). <https://www.fao.org/faolex/results/details/es/c/LEX-FAOC136767/>

<sup>4</sup> Canadian Soil Quality Guidelines. CCME (Canada Council of Ministers of the Environment). (2007). *Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health: Summary Tables* (Updated September, 2007). [https://support.esdat.net/Environmental%20Standards/canada/soil/rev\\_soil\\_summary\\_tbl\\_7.0\\_e.p](https://support.esdat.net/Environmental%20Standards/canada/soil/rev_soil_summary_tbl_7.0_e.pdf)df

<sup>5</sup> Reference values for main soil pollutants in Portugal. APA (Agência Portuguesa do Ambiente). (2019). *Solos Contaminados - Guia Técnico - Valores de referência para solo. Revisão 3 - Setembro de 2022*. Agência Portuguesa do Ambiente. [https://sniambgeoviewer.apambiente.pt/GeoDocs/geoportaldocs/AtQualSolos/Guia\\_Tecnico\\_Valo](https://sniambgeoviewer.apambiente.pt/GeoDocs/geoportaldocs/AtQualSolos/Guia_Tecnico_Valores%20de%20Referencia_2019_01.pdf)res%20de%20Referencia\_2019\_01.pdf