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Supporting Information

Comprehending the Causes of Presence of Copper and Common Heavy Metals in Sediments of Irrigation Canals in Taiwan

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Table S1. Supporting information of the box-and-whisker plot analysis of sediment quality in irrigation canals, rivers, and reservoirs based on Cu concentration.

Types of water	Irrigation	Reservoir	River
Q1	16.3	11.7	12.4
Median	26.6	18.3	21.6
Q3	62.5	26.7	31.7
Q3 + 1.5 × IQR	132	49.2	60.5
Mean	79.2	22.9	37.1
Max.	5,040	104	1,730
Min.	N.D.	N.D.	N.D.
Number	292	276	443

Note: Q1: first quartile; IQR: interquartile range; Q3: third quartile; Max. and Min.: maximum and minimum; N.D.: not detected.

Table S2. Supporting information of the box-and-whisker plot analysis of Cu concentration in irrigation canal sediment sampling sites in various counties and cities in Taiwan.

County	Yilan	Hualien	Nantou	Pingtung	Miaoli	Taoyuan	Kaohsiung	Yunlin	New Taipei
Q1	30.1	16.7	9.62	46.6	8.27	30.6	23.2	19.1	47.7
Median	34.8	23.1	13.9	80.6	10.4	75	25.0	22.9	62.0
Q3	50.5	31.5	19.1	134	21.9	148	51.4	24.9	76.8
Q3 + 1.5 × IQR	81.1	53.7	33.3	264	42.3	325	93.5	33.7	120
Mean	41.0	27.2	15.2	92.2	30.5	105	51.1	25.2	103
Max.	81.8	80.1	34.6	186	240	529	177	82.2	857
Min.	14.4	13.5	0.69	24.1	0.69	11	13.5	12.1	12.6
Number	21	29	7	10	25	28	12	18	20
County	**Hsinchu (City)**	**Hsinchu (County)**	**Chiayi**	**Changhua**	**Taichung**	**Taipei**	**Taitung**	**Tainan**	**Taiwan**
Q1	26	11.1	10.0	36.6	11.9	51.9	19.9	6.12	16.3
Median	41.7	14.9	11.6	59.4	26.2	80.3	20.9	8.56	26.6
Q3	86.1	25.9	15.9	84.4	4.08	88.8	24.9	13.2	62.5
Q3 + 1.5 × IQR	176	48.1	24.6	156	102	144	32.5	23.9	132
Mean	57.7	24.1	12.5	340	34.5	71.3	23.9	9.57	79.2
Max.	121	93.2	26.2	5,040	103	98.2	44.2	24.5	5,040
Min.	13.8	0.69	0.69	20.2	0.69	31	18.6	0.69	N.D.
Number	5	19	11	32	17	12	10	16	292

Q1: first quartile; IQR: interquartile range; Q3: third quartile; Max. and Min.: maximum and minimum; N.D.: not detected.

Table S3. Supporting information of heavy metal statistics of irrigation canals in Taiwan.

Pollutant	As	Cd	Cr	Cu	Hg	Ni	Pb	Zn
Q1	4.10	N.D.	19.9	16.3	N.D.	18.8	12.3	75.1
Median	6.23	0.105	28.4	26.6	0.0245	26.3	17.8	119
Q3	8.63	N.D.	42.6	62.5	N.D.	33.9	26.9	242
Q3+1.5×IQR	15.4	N.D.	76.5	132	N.D.	56.6	48.7	491
Average	6.91	0.19	42.5	79.2	0.17	35.9	24.6	262
Max.	35.5	7.92	506	5,040	5.26	836	434	8,570
Min.	0.448	0.105	7.66	0.69	0.0245	6.81	0.915	34.1
Number	295	292	291	292	294	304	292	294

Q1: first quartile; IQR: interquartile range; Q3: third quartile; Max. and Min.: maximum and minimum; N.D.: not detected.