

Supplementary Table S4 The roles of all factors (including geographical distance, environmental variables and N-addition) on the ratio of N₂O reduction rate evaluated by stepwise multiple regression modeling at the regional scale (all regions) and sub-regional scales (LP, IMP and XP).

Sites	Explanatory variable	Standardization coefficient	<i>P</i>	Full model (Adj. R ²)
All	MAP	0.303	0.000	0.56
	N addition	0.378	0.000	
	TN	0.489	0.000	
	moisture	-0.258	0.014	
	DIN	0.252	0.001	
LP	N addition	0.744	0.000	0.85
	Geographical distance	-0.414	0.000	
	MAP	-0.494	0.000	
	MAT	0.336	0.001	
IMP	TC	0.703	0.000	0.70
	pH	0.8	0.000	
	N addition	0.278	0.002	
	Geographical distance	-0.414	0.024	
TP	MAP	0.836	0.000	0.69
	pH	0.656	0.000	
	TN	0.513	0.008	