

SUPPLEMENTARY MATERIALS –

Establishing a minimum data set for soil quality assessment in paddy fields: Incorporating soil properties and terrain attributes

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Table S1. Linear scoring functions and indicator parameters

Soil Indicator	Unit	Type	L	O	U
Sand	g hg ⁻¹	SSF2	20.00		66.30
MWD	mm	SSF1	0.02		3.38
OC	g hg ⁻¹	SSF1	0.25		2.00
AK	mg kg ⁻¹	SSF1	12.00		250.00
AP	mg kg ⁻¹	SSF1	2.00		13.00
OC/AP	-	SSF1	0.20		1.00
pH	-	SSF3	6.00	6.5	7.00
MBC	mgC hg ⁻¹	SSF1	30.00		85.00
MBP	μgP g ⁻¹	SSF1	2.00		30.00
MBN	μgN g ⁻¹	SSF1	2.00		15.00
qCO ₂	mgCO ₂ -C g ⁻¹ C _{mic} h ⁻¹	SSF1	0.50		3.00
Urease	μgN-NH ₃ g _{soil} ⁻¹ 2h ⁻¹	SSF1	0.14		14.00
AcP	μgppNP g ⁻¹ dry soil h ⁻¹	SSF1	6.70		27.3.00

OC; organic carbon, AP; available phosphorus, AK; available potassium, MBC; microbial biomass carbon, MBP; microbial biomass phosphorus, MBN; microbial biomass nitrogen, SMR; soil microbial respiration, qCO₂; metabolic quotient, AcP; acid phosphatase, SSF1; "more is better" function, SSF2; "less is better" function, SSF3;"optimal range" function, L; lower threshold, U; upper threshold, O; optimum level.