

Supplementary Material

Table S1. Loadings matrix with first three factors extracted from the PCA analysis. Eigenvalues retained in each factor are in bold. VC. Vegetation cover; BD. bulk density; WHC. water holding capacity; SWC. soil water content; MWD. mean weight diameter; WSA. water stable aggregates; SOM. soil organic matter; P₂O₅. available phosphorous; TN. Total nitrogen; TP. time to ponding; TR. time to runoff; Run. runoff. SC. sediment concentration; SL. sediment loss; N loss. nitrogen loss. C loss; carbon loss and P loss; phosphorous loss.

Variable	Factor 1	Factor 2	Factor 3
VC	0.420336	-0.847433	0.038018
Slope	-0.111364	-0.245337	0.676133
BD	0.709816	-0.329126	0.338922
WHC	0.007888	0.846691	-0.005965
SWC	-0.216551	0.048632	0.897734
MWD	-0.542799	-0.492202	0.376247
WSA	-0.416053	-0.763935	-0.099117
SOM	-0.715990	-0.645167	-0.018726
P ₂ O ₅	-0.627272	0.553265	0.266105
TN	-0.718770	-0.642569	-0.016918
TP	0.973361	0.123830	-0.086362
TR	0.889123	0.129982	0.164187
Run	-0.988499	0.061462	-0.077992
SC	-0.597011	0.720907	0.140486
SL	-0.944624	0.298432	-0.008772
C loss	-0.976951	0.010655	-0.093404
P loss	-0.936609	0.324396	0.029172
N loss	-0.706907	-0.361855	-0.269028