

Tab. S2. Variation from principal component analysis (PCA) of nine topsoil (0 – 15 cm) physicochemical variables (gravimetric water content, organic matter, bulk density, pH, and nutrient concentrations; total N, P, K, Ca and Mg) across 24 plots from heath forest (HF), *Acacia*-invaded heath forest (AHF), mixed dipterocarp forest (MDF) and *Acacia*-invaded mixed dipterocarp forest (AMDF) and percentage of total variation explained by each principal component axis. Loadings and signs of the correlation coefficient (trait loading) of each property for the first three principal component axes were presented. Variables with the highest loadings are indicated in bold.

Parameters	Principal component (PC) axes		
	1	2	3
% of total variance explained	41.7	23.4	11.4
Cumulative % variation explained	41.7	65.0	76.5
Loadings of soil nutrients and physical traits			
Gravimetric water content	-0.26	-0.13	-0.23
Organic matter	-0.01	-0.67	-0.06
Bulk density	0.27	-0.23	-0.63
pH	-0.15	0.50	-0.43
Total N	-0.33	-0.46	-0.01
Total P	-0.47	0.05	0.18
Total K	-0.48	0.07	0.21
Total Ca	-0.30	0.08	-0.50
Total Mg	-0.43	-0.06	-0.18