

Supplementary Figure S1: Partial factor productivity distribution

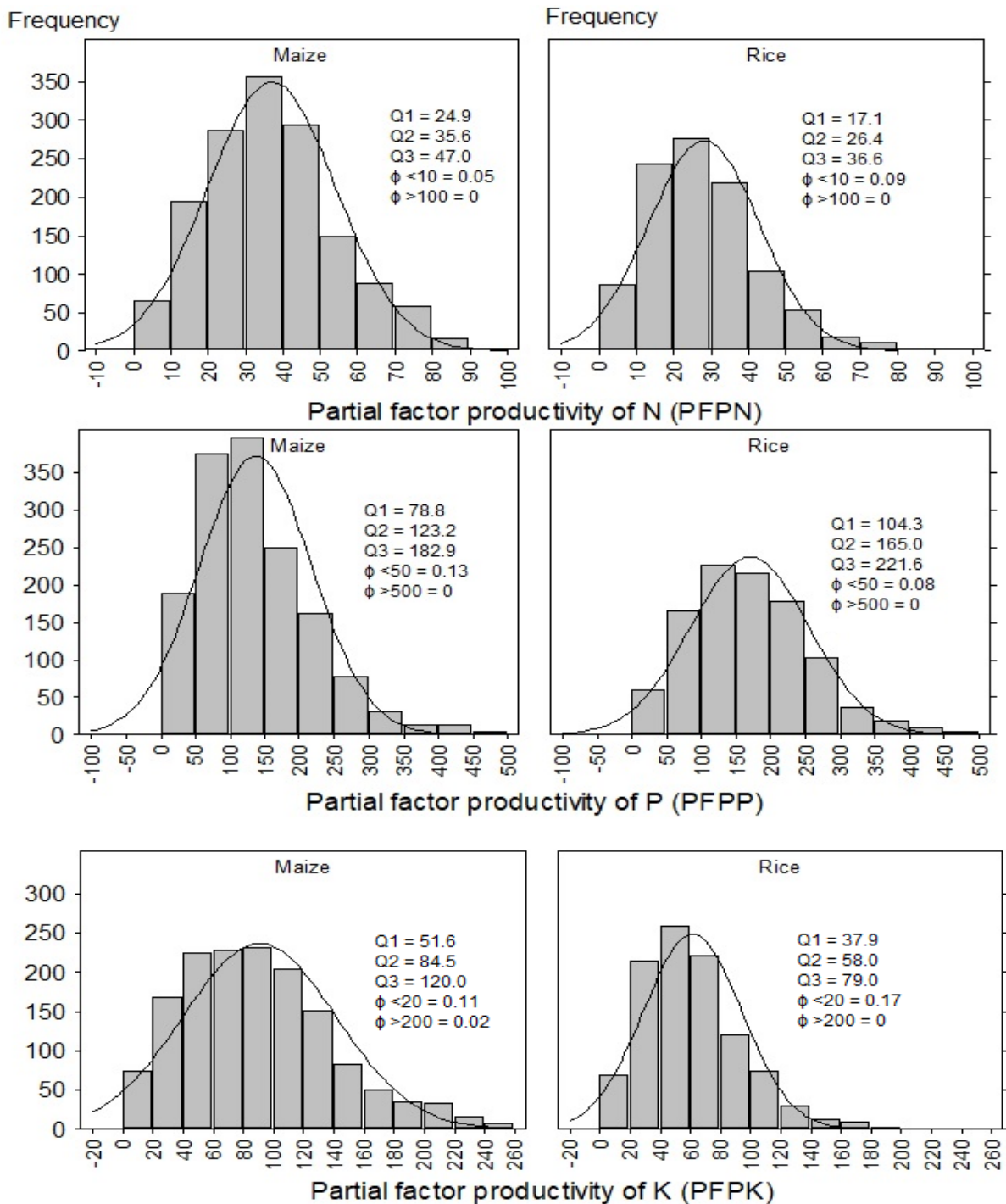


Figure S1. Comparison of the empirical distributions of partial factor productivity (kg grain kg⁻¹ nutrient) of N, P and K in maize (left panel) and rice (right panel). Smooth lines represent the normal probability distribution of each variable. Q1 is the first quartile, Q2 is the median, Q3 is third quartile, ϕ is the probability of values falling below (<) or exceeding (>) a given level and CV is the coefficient of variation (%). For each variable, sample sizes were 1510 for maize and 1014 for rice.

Supplementary Figure S2: Agronomic efficiency of N, P and K in maize and rice

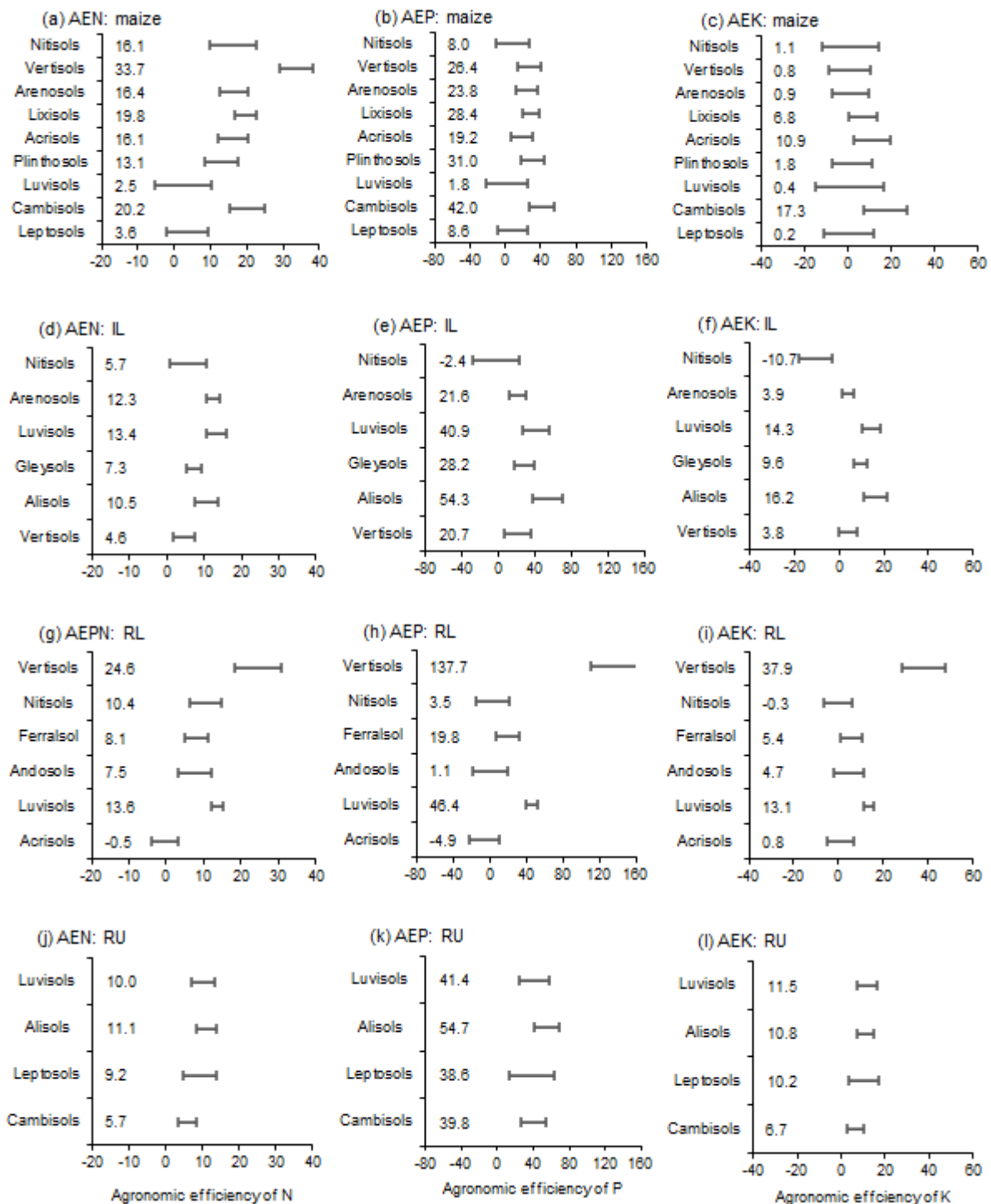


Figure S2. Variations in the agronomic efficiencies of N (AEN), P (AEP) and K (AEK) in maize and rice by soil type in irrigated lowland (IL), rainfed lowland (RL) and rainfed upland (RU). Horizontal bars represent the 95% confidence limits. Calculation of AE: response to AEN = $(Y_{NPK} - Y_{PK})/Nrate$; AEP = $(Y_{NPK} - Y_{NK})/Prate$; AEK = $(Y_{NPK} - Y_{NP})/Krate$.