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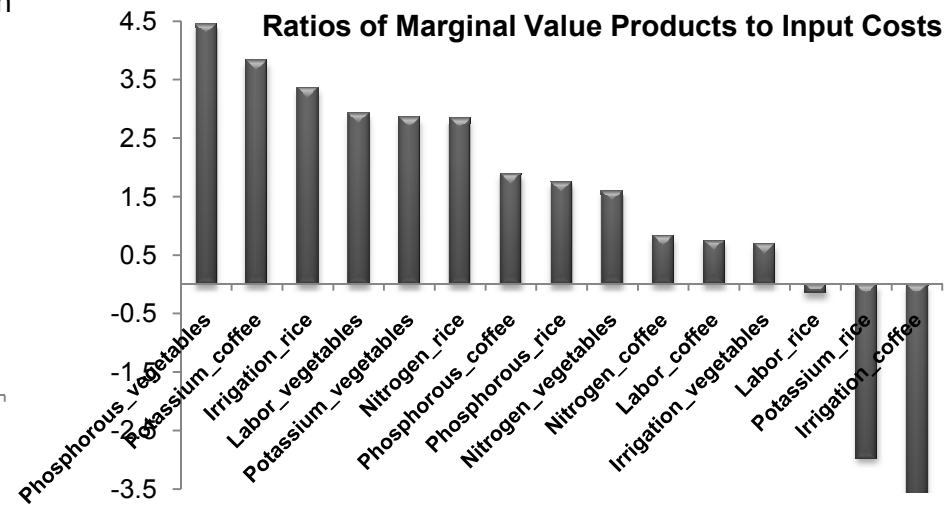
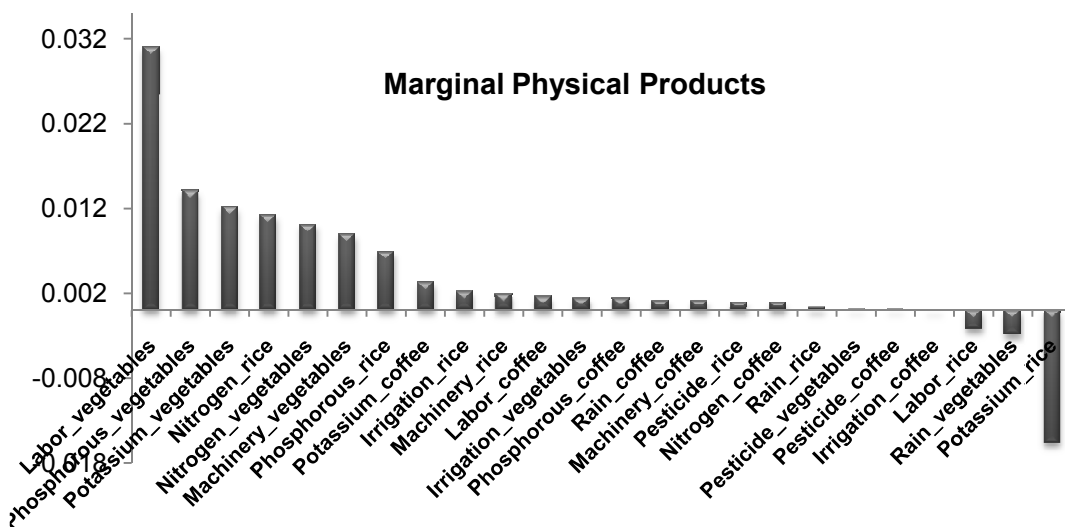
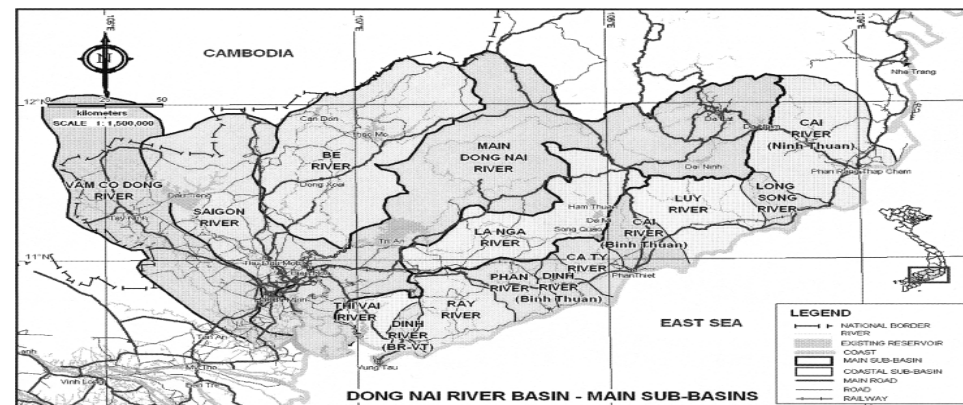
Improving Resource Allocation and Incomes in Southern Vietnam

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Question: Do low-income crop farmers in the Dong Nai river basin of Vietnam combine inputs: fertilizers (nitrogen, phosphorous, potassium), labor, machinery, pesticides, irrigation water and rain water optimally?

Method: Parameters of yield functions (translog) for rice, vegetables and coffee are estimated from regression analysis using farm cost survey data. Results are then used to calculate both marginal physical products (MPPs) and their corresponding marginal value products (MVPs).

Data: In 2002-03 a household survey was administered to 700 farm households in 11 provinces under the auspices of the Vietnamese Sub-National Institute for Agricultural Planning and Projections and the International Food Policy Research Institute.



Technical efficiency requires that inputs exhibit positive MPPs. All but potassium and labor in rice, and irrigation in coffee have estimated $MPPs > 0$.

Economic efficiency requires equality between a factor's MVP and its marginal cost. An MVP to input price ratio > 1 reveals potential for improving income by increasing investments and vice versa. Where resources are fixed (irrigation water, family labor) the only meaningful comparisons are of MVPs across output categories.

Conclusions: Farmers are, in general, underutilizing fertilizers: with the exception of potassium in rice production, profits could be raised by increasing application rates of all fertilizers for all crops. Farm income could also be increased by reducing labor in coffee and rice production, and by reducing irrigation water in vegetable and coffee production.