

# Policy Issues on Phosphate Fertilizer Use in Western Buganda

## 1. Description of the problem

- Soil P deficiency is widespread in soils Western Buganda and crop **responses** to P fertilizer in cereals and legumes are large.
- Response **economics** are poor because of high P fertilizer prices and low commodity prices.
- Farmers obtain poor responses to nitrogen fertilizer because of P deficiency
- Lack of **maps** showing soils that are responsive to P fertilizer
- Recapitalization of soil P requires a coordinated **state-driven, market mediated programme** aimed at small farmers.

## 2. Opportunity for policy interventions

- State driven market mediated programmes to promote fertilizer P use were a cornerstone of the successful 'green revolution' campaigns in Southeast Asia
- Provide a short term (three-five year) subsidy on P fertilizer so that its use becomes economic.
- Implement parallel measures to improve the P fertilizer supply chain to reduce farmgate prices.
- Prepare maps showing P responsive soils in Western Buganda.

## 3. National economics issues

- The promotion of P fertilizer use is an important component in programmes designed to improve food security and food self sufficiency.
- Ex-ante analysis of the potential impact of promoting P fertilizer use (subsidies, extension programmes, development of extension materials) should be carried out to assess costs and benefits.

## 4. Technical issues

- P fertilizer becomes a capital asset when the fertilizer is incorporated in the soil and soil conservation measures are implemented.
- P fertilizer drives legume productivity and increases biological N<sub>2</sub> fixation when combined with the appropriate use of inoculants.
- Application rates required to eliminate P deficiency vary across farms and landscapes. Maps showing recommended rates are required to guide extension workers.

## 5. Farm economics issues

- P fertilizer adoption depends on economics of responses:
  - Fertilizer response (output:input ratio);
  - Ratio of input to output prices; and
  - Net returns (value:cost ratio)

Parameter	Ratio	Critical value
Fertilizer response	Output:nutrient	>10
Input & output prices	Input:output	<2
Net returns	Value:cost	>2

- Response economics should be communicated to farmers in terms that are readily understood (e.g., number of bags of maize required to break even or achieve a profit)
- Risk assessment is an integral part of the assessment of economics

## 6. Knowledge transfer issues

- Prepare a suite of multi-media technical extension materials (print, video, radio) aimed at extension workers and farmers on the use of P fertilizers.
- Implement a mass training programme on use of P fertilizers for soil fertility restoration
- Researchers and extension workers need to be trained to assess the economics of P fertilizer use before making recommendations and implementing demonstrations