

Sub-Sahara Africa's survival on low phosphorus agriculture

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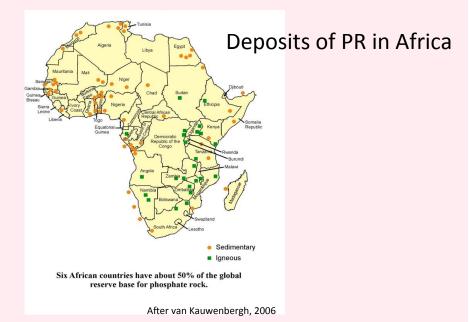
Sustainable Food Systems

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Sub-Saharan Africa's survival on low phosphorus agriculture: The irony

 Africa has the necessary natural resources for direct application or local manufacture of some nutrients, including P



 Of the 15-20Mt projected increase in PR supply between 2010 – 2015, half of it is from Africa (IFA, 2011)

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BUT Africa hardly uses these resources; mining is at 2.5kg P ha⁻¹yr⁻¹:

- Costly processing into fertiliser locally
- Most are not soluble for direct application
- Direct use requires high application rates

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Smallholder technological choices



Increasing efficiency of (the limited) external P inputs	Decreasing P output	Better use of on-farm sources
 Input placement Input combinations Target fields that give largest yields Target systems that maximise residual effects 	 Erosion control Reduce leaching 	 Residue recycling Human manure use Cropping choice Water management Biological access

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