Beyond subsidies: What are the prospects for integrated soil fertility management approaches in Malawi?

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The story of soil fertility research and promotion in Malawi

• The soil fertility story in Malawi is dominated by “we are taking too much from the soil, we are putting in little”
  ▪ Continuous maize cropping
  ▪ Low use of inorganic fertiliser – 43 kg/ha (11N/ha)
  ▪ Low use of organic manure – 12.7 % HH
  ▪ Low use of legume intercropping 37.9 %

• We argue the story has generated 3 schools of thoughts with farmers in the middle:
  ▪ Story of inorganic fertilisers
  ▪ Story of organics
  ▪ Silent story - ISFM
1. **Story of inorganic fertilisers**

- Long series of initiatives – based on subsidised improved maize seeds and fertiliser

- Recommendations, blanket and location-specific, subsidised fertiliser.
  
  1. Model of large-scale modern agriculture e.g. world view of Brazilian agriculture
     - Involving land consolidation for large scale farms
     - Highly mechanized
     - Serving the interests of politicians; private sector – local/global capitalism – agro-dealers, transporters, seed companies, fertiliser companies, formerly – development community

2. Social protection – food security
   
   - Serving the interests of politicians (votes), resource constrained farmers (lack capital to secure inputs)
Inorganic camp: Claiming a ‘Green Revolution’ in Malawi

• Increase in use of hybrid seeds and fertiliser
• Increase in national maize production to over 3m MT. “from food importing to food exporting nation”;
• However (Dorward, Chirwa et al) –
  ▪ short-term production gains;
  ▪ no change in poverty;
  ▪ targeting problems;
  ▪ sustainability – economically, environmentally.
2. Story of organics

• Also known as God’s blanket.

• For nutritious food, environmentally based. E.g. permaculture, Conservation Agriculture??

• Serving the interests of the organic society and academicians for papers and publications
Organic camp: Claiming success in Malawi

• Setting up resilient and diversified systems which enhance, multiply & enrich the interconnections between natural components

• Creating ‘closed’ systems where the site itself provides a return of all organic materials, seeds, building supplies, and dietary requirements of each organism within that system

• Critique – contested agronomics
  ▪ CA requires herbicides (not organic!);
  ▪ Organic only applies to small-scale, niches.
3. Silent story - ISFM - the middle way

• ISFM – where farmers are; bridges the 2 paradigms
  • Based on principles not packages
  • Combines inorganic + organic. E.g intercropping, rotation, agroforestry, Doubled up legume, protecting trees (msangu), planting legumes, combine inorganic fertiliser with organic manure
  • Serving the needs of farmers
ISFM camp: Claiming success in Malawi

- ISFM technologies (legume + a 1/4 of N rate for maize)
  - improve productivity of maize based systems;
  - Can reduce reliance on inorganic fertilizers.
Farmers amazed at good maize stand from ¼ of recommended inorganic fertilizer combined with legume rotation.

Reduced risk of crop failure if legumes are integrated in maize based systems compared to continuous maize with or without fertilizer.
Nothing easy for ISFM

• less research funding (exceptions RF/McK/ICRISAT);
• methods difficult on large & complex systems;
• limited support or no buy in from politicians (politically driven: ‘modern’ vision), – locally, development community, private sector.
• rent-seeking by agribusiness,
• farmers planting legumes for cash is not ISFM
• principles not communicated to farmers
• lot of talk about OM – but more complicated,
So, what is beyond subsidy: the Doubled up legumes

- Beyond subsidy there is ISFM
- E.g Doubled up technology has been released by TCC
  - To benefit soils (health) and people (yield and nutrition)
- An opportunity to bring the 2 paradigms & build the bridge for farmers to walk on
- However, there is need for:
  - Strong counter narrative
  - Involve education & extension
  - involve seed, markets
Thank you too much

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