BRIEF ON AGRICULTURAL MECHANIZATION STATUS IN UGANDA

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Importance of agriculture to Ugandan economy

- Agriculture and forestry contributes 14.6% of GDP (UBOS & MOFPED, 2010)
- Employing about 80% of the population
- IFPRI in 2008 showed that, if agriculture in Uganda grows by 6%, poverty would fall from current 31.1% to 17.9% by 2015
- This would be well below 28% MDG target
Agricultural growth rates from 2005 to 2010 (UBOS & MOFPED, 2010)

Staggering at very low level
Agriculture and Poverty

- At 6% agric growth, poverty would reduce to 17.9% by 2015 (MDG target is 28%).
- Not the case, with population growth rate of about 3.5%, MAAIF has estimated that No. of poor people will increase from 8.5m (31.1%) in 2005 to 10.2m (29.8%) in 2015
- Why is agric growth far below expected 6%?
- Several key causes among them is the
Agriculture and Poverty Con’ts

- Very low level of mechanization to increase acreage and for post-harvest operations

- Consequently farmers are not able to meet their market needs of quantity, quality and timely delivery of produce and products to market place

- As well as ensuring their household food and income security.
Current level of mechanization

Production level

- Hand hoe: 88.6%
- Animal traction: 10.2%
- Tractors: 1.2%

Extremely very low level and appalling
Post-harvest level

- Studies have shown that 99.4% smallholder farmers use traditional, rudimentary and obsolete technologies and methodologies for post-harvest operations.
- With devastating effects of high post-harvest losses and low market value
Quantitative grain loss of rice

These sum to 49,000 tons, an equivalent of 21.8% of the national rice demand. Import is 28.4% of national demand.
Constraints and Opportunities

- **Key Constraints**
  - **A. At institutional level**
    1. Weak extension support with respect to:
       - Soil fertility management to address the fall out effects of mechanized production
       - Relevant agronomic knowledge of mechanized agriculture
    2. Low level of back-up and support services for machinery
3. Mechanization focuses on production (land opening) without addressing the complete value chain to markets is disincentive to mechanized farming
Key constraints continues

B. At farmer level

1. Limited access to efficient and economically viable machinery and equipment
2. Limited access to financial services for farmers
3. Inadequate knowledge base of farmers in mechanized farming
4. Attitudinal mind set by some farmers that mechanization causes soil degradation
Key constraints continues

c. At equipment manufacturers level

1. Inadequate knowledge in manufacturing engineering.
2. Lack funds to acquire the critical and specialized manufacturing equipment and tools.
Opportunities

- Favorable government policy of liberalized market economy which encourages private sector development
- Rapid urbanization and change in consumer preference from traditional to rice based diets.
- Favorable trade policies allow cross border trades. E.g. East African Economic Federation,
- Uganda has considered rice as one of the strategic crops for poverty alleviation
Level of mechanization needs for rice

- Mechanization should address the entire rice value chain
- Uganda has farm sizes ranging from 1 acre to 1,000 acres. Majority are in the range of 5 and 100 acres.
  - Production operations will therefore require:
    - Animal traction technologies and associated implements for smallholder farmers
    - Power tillers and its associated implements for smallholder farmers
Mechanization needs for rice con’ts

- Tractors (two axle) and its associated equipment
- Post-harvest for rice will require:
  - Small to medium sized motorized technologies for threshing, cleaning, etc
  - Medium sized milling technologies: pre-cleaners, de-huskers, mills, de-stoners, graders, blending and packaging.
On-going research activities

- Development of implements for proven power tillers for Ugandan soil conditions. They are: mould-board ploughs, planters and weeders
- Technical evaluation of rice post-harvest technologies - due for completion in July 2011
Government strategy

- **Government is promoting mechanization through:**
  - strengthening the current mechanization policy
    - Committing funds for the farmers and private-sector to acquire farm machinery and equipment
    - Promoting local manufacture of farm tools, implements and equipment for post-harvest
    - creating government managed central and regional workshops to provide technical back-stopping and critical maintenance services
Government strategy

- Creating central workshop and training facility for training operators, special maintenance skills for mechanics, major repair services and extension

- At the moment there is:
  - Promotion of power tiller tech through farmer groups
  - Re-introduction of animal traction technology
  - Research in developing/adapting appropriate technologies for local needs
  - Tax incentive on agricultural machinery
We THANK YOU!