



PROMOTING COTTON BY-PRODUCTS IN UGANDA FOR INCREASED INCOMES

Presented at:

WTO/ITC/UNCTAD Workshop on Cotton by-products

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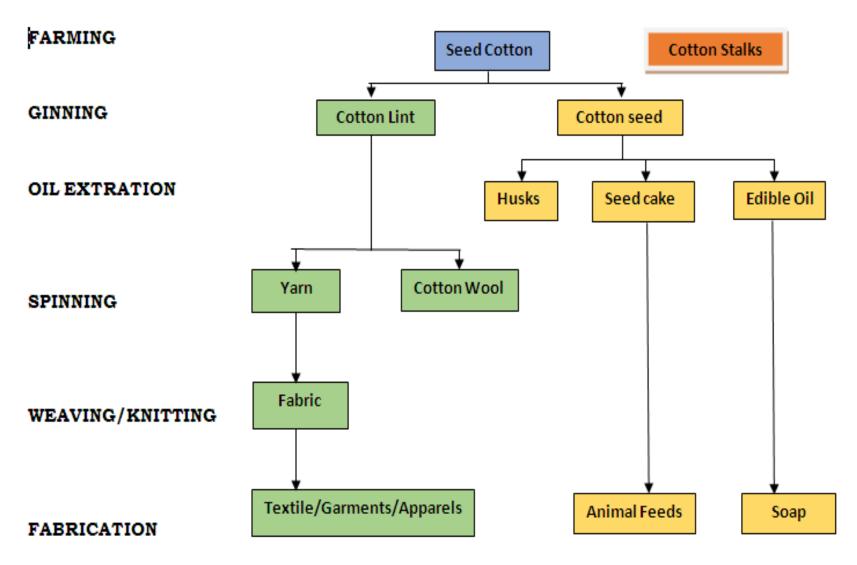
Presentation outline:

- Introduction
- Selected high potential cotton by-products
- Policy frameworks supporting development of cotton byproducts
- Key challenges facing development of the by-products
- Strategies to address challenges
- Lessons learnt
- Conclusion

1. Introduction:

- Cotton is one of the strategic commodities under the Agriculture Sector on account of its potential for industrial development.
- Cotton Development Organisation (CDO) promotes production and monitors processing and marketing of cotton.
- Marketing and processing are liberalized i.e. ginning and other value addition activities are done by private sector.
- Major achievements have been registered in relation to production and quality management.
- However, value addition is generally low;
 - The lint value chain is more developed than that for cotton byproducts.

Fig. 1. The Cotton Value Chain in Uganda



2. Selected high potential cotton by-products:

By-product	Proposed interventions	Justification
Cottonseed	Remove the Gossypol enzyme to extend use the cake for non-ruminants livestock.	Extending the market for cottonseed cake to the non-ruminant segment will increase demand for cottonseed, and consequently the demand for seed cotton grown by farmers. Since cottonseed constitutes the biggest portion of seed cotton, the increased demand will contribute to better farm-gate prices which will in turn spur production.
Absorbent cotton wool	Increase production by using short, coarse cotton fibres and ginning waste.	Absorbent cotton is on high demand in Uganda. Increased domestic production will therefore create jobs and contribute to import substitution. Existing manufacturers however use the fine, medium to long staple cotton which is better suited for production of textiles, garments & apparels.

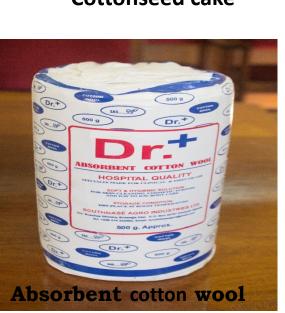
2. Selected cotton by-products cont'd:

By-product	Proposed interventions	Justification
Cotton stalks	Produce charcoal briquettes from cotton stalks.	Stalks share many characteristics with hardwood species. Increased use of stalks as a source of fuel will contribute to reducing the rate of deforestation and provide additional income to farmers.
	Produce substrate for mushroom growing using cotton stalks.	Consumption of mushrooms is rising due to their lean protein content & other health benefits. Cotton stalks have high cellulose and lignin content, making them an ideal substrate for mushroom growing. Mushroom growing provides employment and incomes to farmers especially women and youth.

Selected high potential cotton by-products



Cottonseed cake



Charcoal briquettes



Mushroom growing



3. Policy frameworks supporting development of cotton by-products:

Policy framework	Supporting component
Buy Uganda Build Uganda (BUBU) Policy	Promotes procurement of locally produced goods/services.
The National Development Plan II (2015/16 – 2019/20)	Has a strategy on promoting industrialization thru agro-processing, mineral beneficiation and light manufacturing.
The Agriculture Sector Strategic Plan (2015/16 – 2019/20)	Has an objective on increasing sustainable production, productivity and value addition.
The Cotton Sub-sector Strategic Plan (2016/17 – 2019/20)	Has strategy on promoting domestic value addition.

4. Key challenges facing development of by-products:

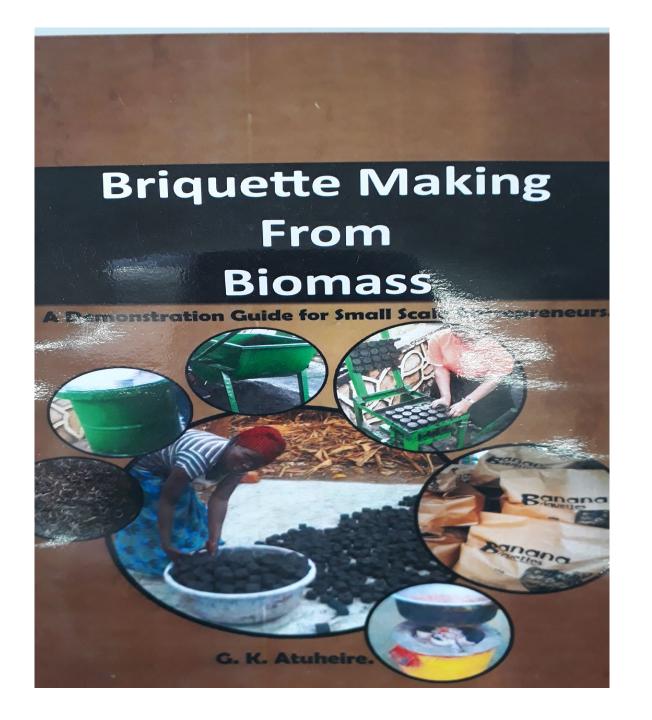
- Limited capacity to stock raw materials -
 - Financing required to stock cottonseed for the entire year is a huge cost to oil millers.
- Access to technology e.g. de-gossypol technology for assessing levels and for detoxification and technology for processing cotton stalks.
- Shortage of specialized technicians -
 - Results in inefficiency in operations and high dependence on foreign technicians which increases the cost of production.
- Fragmented institutional structure to oversee development of the entire Cotton Value Chain in Uganda -
 - While CDO focusses on production, marketing and ginning, there is no formal mandate or budget for CDO to regulate downstream activities.
- High cost of credit -
 - High cost of capital (interest rate of about 24% per annum) limits investments in upgrading existing machinery, or purchasing new equipment/technology.

5. Strategies to address challenges:

- UNCTAD commissioned development of two Investment Profiles for absorbent cotton wool and charcoal briquettes to jump start development of these by-products.
- Supply of raw materials CDO has proposed to Government to expand the Revolving Lint Buffer Stock Fund to cover supply of cottonseed to oil processors.
- Training centre there is need to establish a cotton training centre to enhance capacity building and training in the required skills and technologies.
- Legal framework Stakeholders recommended amendment of the Cotton Development Act 2000 to extend the mandate of CDO from production & ginning to regulating the entire Cotton Value Chain.
- Working capital Uganda Development Bank has develop a product on equity investment in both startup and existing projects for a period not exceeding 10 years.

6. Lessons learnt:

- The Uganda Industrial Research Institute (UIRI) has developed small-scale, manual briquetting kilns which can be modified for cotton stalks.
- A new microbial process for removing gossypol from cottonseed cake has been developed by India's Central Institute for Cotton Research (CIRCOT).
- CIRCOT also has technology for processing cotton stalks. This can be adapted to Uganda's needs.
- Uganda's SATU cotton variety with short, coarse lint fibres is more suitable for processing into absorbent cotton wool than the fine, medium-long staple fibre variety; BPA.
- Development of cotton by-products will require both public and private sector investments especially in regard to value addition technologies.



CONCLUSION

Cotton has one of the longest value chains among agriculture commodities.

Promoting development of the selected cotton by-products will contribute to exploiting the value chain and improving value addition to cotton.

This will in turn spur creation of employment, increased returns from cotton and farmers' incomes, create import substitution and contribute to environment protection.

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