Opportunities and Challenges in the Development of Cotton By-Products in Zambia

Presented
By
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Introduction

Cotton remains an important cash crop for smallholder farmers in cotton growing areas of Zambia

- Grown by over 250,000 smallholder farmers

Source of income for rural households and creates employment opportunities for people

The crop is also becoming an important feedstock for animal feed production (cotton cake)

At macro level cotton is a source of revenue to the treasury.

- The sector contributes about USD 60 million or more to economy which varies between 0.25% to 1.45% of GDP
Introduction cont’d

Seed cotton in Zambia is grown mainly for cotton lint and almost all exported because the textile industry is collapsed.

The attractiveness of cotton production is further affected by the reduction in profit margins along the value chain.

Therefore, development of cotton by-products could be an avenue that can help improve the profit margins of farmers and other stakeholders.
Uses of Cotton

COTTON PLANT

COTTON STALKS

COTTON PLANTING

SEED COTTON

SEED

Meat

Hulls

Linters

Cake / meal
- Flour
- Feed
- Fertilizer

Oil
- Salad / cooking oil
- Cosmetics
- Pharmaceuticals
- Waterproofing

- Feed
- Fertilizer
- Synthetic rubber

- Food packaging
- Plastics
- Film
- Paper

Pulp
- Particle board
- Fuel briquettes
- Substrate for mushroom cultivation

Focus area of UNCTAD project:
"Promoting cotton by-products in Eastern and Southern Africa"

Source: Adapted from Cotton Development Organisation, Uganda
COTTON PLANT

SEED COTTON

COTTON STALKS

Planting seed

SEED

Cake / meal
  • Feed

Meat

Oil
  • Salad / cooking oil

Hulls
  • Feed
  • Fertilizer

Linters
  • 99% exported

Zambia Cotton By-Product Value Chain

Well developed cotton by-products
- Mt Meru Millers
- China Africa Cotton
- Continental Ginneries

Partial development and not yet developed Cotton by products in Zambia

Source: Adapted from Cotton Development Organisation, Uganda
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• Feed
• Fertilizer
• Synthetic rubber

Absorbent cotton (surgical/sanitary pads)

Focus area of UNCTAD Project in Zambia

Source: Adapted from Cotton Development Organisation, Uganda
Opportunities

Domestic demand for cotton by-products is high

- Cake, hull due development of dairy sector
- Cooking oil for human consumption
- Surgical/sanitary pads
- Fuel (briquetting/pellets) and may help reduce deforestation

Availability of cotton stalks (Which are currently burnt or destroyed)

Farmer can start growing cotton with minimal investment

- Because ginners will offer them inputs on credit

Government interest and prioritizing cotton as an important crop in industrialization and Job creation strategy

Enable farmers and other stakeholders to improve the profit margins along the value chain
Key Challenges

Low seed cotton production due to poor yield (450-850kg/ha against 2500kg variety potential)

- Low adoption of technologies
- Uncoordinated extension messages
- Climate change
- Lack of price setting mechanism (price formal)

Limited use of feedstock from cottonseed - only for ruminants because of gossypol

Importation of cheap edible oils

Lack of appropriate technologies in to add value to cotton by products

VAT on cottonseed
Area (ha), lint output (mt), yield (mt/ha) and US$/kg of seed cotton
What should be done to actualize the development of the cotton by-products in Zambia
General recommendation

The development of the cotton by-products should not be looked in isolation from the development of cotton value chain but as part of the entire value chain.

- For example, if seed cotton production doubles from its currently average production of 100,000mt in Zambia, it means, cotton stalk, cottonseed will also double, so are the cotton by-products.
Specific Recommendations

To enhance Seed cotton Production

- Promote the adoption of new technologies eg hybrid seed, CSA practices
- Coordinated extension services (private/public)
- Government to increase funding to the cotton research institution
- Offer tax incentives for inputs for seed cotton production
- Introduction of a price setting mechanism (price formula)
Specific Recommendations

By-Products

- Continued Government support to the UNCTAD Pilot Project for the development of two cotton by-products in Zambia
- Promotion of affordable technologies to farmers and other stakeholders to use at farm-level (chipping technologies), factory level (pellets and particles and sanitary products) (Thanks to India)
- Develop strong relationship with cattle farmers (dairy)
- Apply appropriate taxes that can curb importation of refined oil
- Government to improve monitoring borders points to curb smuggling of cheap oils
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Thank you