



National Capacity-Building Workshop

Promoting cotton by-products in Zimbabwe

27-29 September 2017, Brontë Hotel, Harare

Report of the workshop

Prepared by

Dr. Gibson Chigumira (National Consultant), Executive Director, ZEPARU



UNITED NATIONS
UNCTAD

in partnership with United Nations
Economic Commission for Africa
and Common Market for Eastern
and Southern Africa



Project: 1617K - Funded by the United Nations Development Account - 2016-2019

Acknowledgments

UNCTAD commissioned this report as part of UN Development Account Project 1617K: "Improving the value added of cotton by-products in Eastern and Southern Africa (ESA)". The report summarises the proceedings and outcomes of the national capacity-building workshop, held in Harare on 27-29 September 2017.

For more information, please visit the project site at: <http://unctad.org/en/Pages/SUC/Commodities/SUC-Project-1617K.aspx>.

This paper was prepared by a consultant, Dr. Gibson Chigumira, Executive Director, ZEPARU, Zimbabwe. The work was supervised by Ms. Yanchun Zhang, Chief, Commodity Policy Implementation and Outreach Section (CPIOS) with the contributions of Mr. Kris Terauds, Economic Affairs Officer, Special Unit on Commodities.

Disclaimer

The material in this paper represents the personal views of the author only, and not the views of the UNCTAD secretariat or its member States.

This is an unedited publication.

The designations employed and the presentation of the material do not imply the expression of any opinion on the part of the United Nations concerning the legal status of any country, territory, city or area, or of authorities, or concerning the delimitation of its frontiers or boundaries.

Note

Material in this publication may be freely quoted or reprinted, but acknowledgement is requested, together with a copy of the publication containing the quotation or reprint to be sent to the UNCTAD secretariat.

Contacts

For further information on the Special Unit on Commodities, please contact us at:

UNCTAD
Special Unit on Commodities
Palais des Nations
8-14, Avenue de la Paix
1211 Geneva 10
Switzerland
Phone: +41 22 917 1648 / 6286
E-mail: commodities@unctad.org

UNCTAD/SUC/MISC/2017/13

Table of Contents

1. Introduction	4
1.1 Summary of Stakeholder Workshop Expectations.....	4
1.2 Remarks from Ministry of Industry and Commerce.....	4
1.3 Introduction of the Project from UNCTAD	5
1.4 Remarks from UNDP	5
1.5 Remarks from UNECA	5
2. Presentation of Survey Results	6
2.1 Impediments to Cotton by-Products Value Addition.....	6
2.2 Infrastructure and Technology	6
2.3 Stakeholders' Perceptions	7
2.4 Concluding Recommendations	8
2.5 Discussants' Comments	9
2.6 Floor Discussions.....	10
3. Increasing Seed Cotton Production in Zimbabwe.....	11
3.1 Floor Discussion	11
4. Identification of an Oversight Committee.....	12
5. Priority Cotton By-products for Development.....	12
5.1 Floor Discussion	12
6. Strategies for Developing Priority Cotton By-Products.....	13
7. National Action Plan to Develop Cotton By-Products	14
7.1 Next Steps	15
8. Policy Workshop Outcomes	15
8.1 Gap Analysis.....	15
8.2 Best practices.....	17
9. Closing Session	17
Annex 1: Workshop Programme	19
Annex 2: List of Participants	23

1. Introduction

The National Capacity Building Workshop was held at the Bronte Hotel, Harare, Zimbabwe from 27-29 September 2017 (see Programme in Annex 1). Sixty participants attended the conference (see list of participants in Annex 2). The opening session was chaired by Dr. Isaiah Mharapara the CEO, Agricultural Research Council. Following introductions, the chairperson requested participants to express their expectations of the outcomes of the workshop. The following list is a summary of the expectations raised by participants.

1.1 Summary of Stakeholder Workshop Expectations

- i. Focus on strategies to increase the volume of seed cotton production;
- ii. Rebound of cotton production and benefits accruing to farmers from value added activities on cotton by-products;
- iii. Identify bottlenecks in cotton production and the need for Ginners to recognise cotton farmers as farmers and not as labourers;
- iv. Ways to increase national cotton yield levels and value addition;
- v. Workshop resolutions that are practical and actionable;
- vi. Discuss ways to ensure cotton farmers are paid fairly for their hard work, while we continue to revive and grow the cotton sector;
- vii. Coming up with a robust action plan for the promotion of the value addition of cotton by-products.

Having noted expectations of workshop participants, Dr. Mharapara introduced and invited Mrs. Makombe, Director of Enterprise Development in the Ministry of Industry and Commerce, who was representing the Permanent Secretary Mrs Shonhiwa to make her remarks and officially open the workshop.

1.2 Remarks from Ministry of Industry and Commerce

Mrs Makombe welcomed and appreciated the stakeholders from the cotton value chain who attended the capacity building workshop to deliberate on issues that are affecting the value chain raised in the Survey report. She also conveyed her appreciation and thanks to UNCTAD for their continued commitment to industrial development as evidenced by the financial support to the Project on Cotton by-products which is aimed at developing the sector. Mrs Makombe noted that in recognition of its strategic importance, the cotton value chain sector is one of the value chains prioritized for development in Zimbabwe's Industrial Development Policy (2011-2016); Zimbabwe Agenda for Sustainable Socio-Economic Transformation (2013-2018); ZIMASSET; and the Cotton to Clothing Strategy (2014-2019).

Mrs Makombe also informed participants that the Government of Zimbabwe has taken bold steps in efforts to revive the cotton to clothing value chain through both policy implementation and resource mobilization. For example, Government developed a USD 25.8 million cotton inputs support scheme, which targeted 250,000 hectares of cotton in the 2015/16 season. The Cotton Input Financing Scheme provided seed, fertilizers and chemicals to growers. For the 2016/2017 season, the sector was a beneficiary of a USD 42 million facility. She also noted that Government has also introduced an import management programme through a statutory instrument which regulates importation of second hand clothing and fabrics in an effort to recapitalize companies in the cotton to clothing value chain. Textiles manufacturers' rebates and clothing manufacturers' rebates have also been put in place whereby companies are bringing in materials duty free. Of late Government has introduced Special Economic Zones (SEZ) and Bulawayo has been designated a SEZ for Cotton to Clothing.

In her concluding remarks Mrs Makombe noted that the textiles sector is sensitive to technological changes and the subsequent lack of investment has resulted in the absence of fabric required by the

clothing manufacturers. She further noted that abuse of SADC rules of origin by neighbouring countries has had its effects felt and left the industries vulnerable to unfair competition. In this regard she expressed her wish that the workshop will come-up with actionable policy recommendation for consideration by Government to strengthen of cotton by products value chain.

1.3 Introduction of the Project from UNCTAD

Ms. Zhang introduced Project on Promoting cotton by-products in Eastern and Southern Africa (ESA)-UN Development Account Project 1617K, which is being implemented in four countries: Tanzania, Uganda, Zimbabwe and Zambia. She noted that the overall objective of the Project is to strengthen the capacity of beneficiary countries in the COMESA region to assess the economic viability of the development of cotton by-products and formulate evidence-based policies that promote value addition activities. Furthermore she highlighted that the Project has two expected accomplishments:

1. Improved capacity of cotton value chain stakeholders (government officials, the private sector and farmers) to assess the potential value, market situation and prospects for cotton by-products.
2. Improved capacity of policymakers to (a) formulate evidence-based policies that improve the value addition of cotton by-products; and (b) devise investment profiles to attract potential investors.

She concluded her remarks by summarising how the outcomes of the workshop will guide the project's subsequent activities.

1.4 Remarks from UNDP

Mr. Amarakoon Bandara, Economic Adviser UNDP Zimbabwe, prefaced his remarks by demonstrating why cotton is one of Africa's most important agricultural commodities; the need to maximize the potential of the cotton sector, through value addition and the need to make the right investments in rural infrastructure; enhanced capacity building; widened access to credit and spreading new technology which will transform the livelihoods of smallholder farmers who face several market constraints.

He concluded his remarks by highlighting the potential for integration of downstream activities. In his view, Africa tends to focus on the export of raw materials instead of value added products. The same is true for cotton. There is little integration of downstream activities that transform cottonseed into, for example, edible oil and stock feed. He also highlighted multiple factors that constrain the cotton value chain development including: insufficient supply of seed cotton, weak regulatory mechanisms: low yields; tight competition and economic conditions.

1.5 Remarks from UNECA

Mr. Komi Tsowou, Economic Affairs, UNECA noted that the Project aligns with the regional efforts to promote economic diversification through value addition to natural resources. The ultimate goal of these efforts is to contribute to the structural transformation of our economies, with resources shifted from low to higher value added activities. He further noted that this technical cooperation project and others, and particularly the capacity building workshop, will contribute to setting the path towards a revival of cotton and its by-products in Zimbabwe.

He also pointed out that the promotion of value addition to Africa's natural resources has been at the core of the UNECA's agenda. Furthermore, Mr. Tsowou highlighted the need for a regional approach to develop agricultural value chains. In particular he noted that several countries in the SADC Region, including Tanzania, Zambia and Zimbabwe, produce cotton that could be used for well-developed textile and garment industries located in Mauritius and Madagascar. The main argument he highlighted is that our economies are fragmented and deepening regional integration remains the way forward if we are to support our industries. This would certainly entail developing the productive capacity in the

Region just as scaling up cotton production and creating a conducive environment for the industry to shape businesses and grow.

He concluded his remarks by observing that interventions should also focus on mobilizing capital to finance cotton farming initiatives to increase resilience of small farming communities. His expectation was that the capacity building workshop would result in tangible outcomes that would contribute to scaling up cotton production and the development of its by-products in Zimbabwe.

2. Presentation of Survey Results

This session was again chaired by Dr. Isaiah Mharapara who invited the National Consultant Dr. Chigumira to present the Survey Results. Dr. Chigumira started by presenting the objectives of the Survey, methodology used highlighting the key informants interviewed and the number farmer interviewed and cotton growing areas where they were drawn from. He also presented the schematic diagram of the cotton by-products value chain; the potential commercial uses and gaps in Zimbabwe. He highlighted that, potential commercial uses of cotton stalks; cottonseed; linters; motes; cottonseed oil; cottonseed meal, hulls and then proceeded to discuss the impediments to cotton by-products value addition.

2.1 Impediments to Cotton by-Products Value Addition

The Survey revealed that the impediments for value addition of cotton stalk include: lack of knowledge among farmers and other value chain actors; lack of necessary value addition technologies and competition from cheaper imports e.g. kraft paper, thus rendering investment in local production risky. Insufficient quantities to achieve economies of scale due to low seed cotton production and productivity on the other hand impede value addition of Motes and Linters. Availability of pastures for ruminant animals for the better part of the year reduces demand for cotton meal.

Stockfeed producers indicated that they face a short supply of domestically produced feedstock, such as meal from cottonseed or soya. Among these, cottonseed meal is attractive due to its high protein content. Nevertheless, the presence in cottonseed of the enzyme gossypol renders it unsuitable for use in feeds for non-ruminants, such as poultry, pigs or fish, limiting its use to feed for ruminants, mainly cattle. In Zimbabwe, poultry represents the main stockfeed market. Meanwhile, cattle are often pasture-fed, limiting the demand for stockfeed from that segment. These conditions mean that cottonseed meal has a small share of the stockfeed market, relative to other feedstocks, such as soya.

Production of Margarine from cottonseed oil was considered to be unviable as there are insufficient volumes of oil for household and industrial use. Oil expressers also noted that production of Soaps and detergents: restricted by dark colouring and foul-smelling requires extra additives which reduce viability; prohibitive costs to clean and purify the soap; availability of cost effective substitutes and limited availability of seed cotton oil. Lastly the production of candles is restricted by the low wax content of cottonseed oil; limited quantities of oil; costly technology; economic viability given that it requires additional chemicals and availability of cheaper alternatives.

2.2 Infrastructure and Technology

The survey noted that Cotton Research Institute and Outon have infrastructure for Seed breeding, agronomy, entomology and pathology; COTTCO, Alliance and Olam have seed multiplication infrastructure; ginners generally have state-of-the-art ginneries with underutilized total capacity of 440,600 tonnes per year; state-of-the-art equipment for cooking oil manufacturing (e.g. Surface Wilmar has cutting edge equipment); state-of-the-art equipment for feed manufacturing (e.g. Agrifoods's cutting-edge equipment, with underutilized capacity of 4,000 tonnes per day)

Some of the gaps identified included poor agronomic practices (e.g. late plantings, low plant populations, poor weeding, incorrect application of chemicals, improper harvesting and non-use of

fertilizers); low level of mechanisation in cotton production; and de-waxing of cottonseed oil to produce candle wax.

2.3 Stakeholders' Perceptions

Interviews were conducted with 233 farmers selected from the following cotton growing areas Gokwe, Muzarabani, Chiredzi and Bindura to get their perceptions on cotton-by-product value addition. The Survey results on farmer perceptions show that:

- 96.1% of farmers cut and burn cotton stalks; 82% of farmers did not do any form of on farm value addition. 18% of farmers did some grading of the crop.
- 72.6% of the farmers had no idea of the potential of value addition at the farm gate level, while 20.8% and 13.3% were aware of oil expressing and making of cattle feeds respectively.
- Low producer prices; high input costs; erratic rainfall and shortages of inputs were identified as the main factors hampering production.
- Among the farmers interviewed, cotton contributes 80-100% of household income for 13.1% of respondents; 61-80% of income to 22.6%; 41-60% of income to 31%; 21-40% of income to 19.6 and 0% to 20 % of income to 13.7% of farmers interviewed.
- 63.4% of farmers interviewed perceived prices as unviable, versus 36.6% who saw them as fair.
- 48% of the respondents perceived that input costs is the main element considered in price setting while 43.7% were not sure of how prices are set and 13.1% thought it was international prices were the main element considered in price setting. The divergent perceptions could highlight the issue of lack of transparency or communication to farmers on the cotton price setting framework.
- 54.8% of the farmers characterised the farmer-ginner relationship as good. Complaints that were raised by farmers to ginneries related to non-transparency in the pricing system or grade prices, among others.
- 69% of farmers highlighted that the input packages they received were inadequate, while 60.8% of farmers are of the view that side marketing can be resolved by ginneries setting favourable producer prices, while others (24.7%) are of the view that side marketing can be resolved by equalising cotton prices across ginneries.

Ginneries' Perceptions

Ginneries felt that there is scope for more cotton by-product value addition, oil expression and seed multiplication for export. Ginneries also noted that inhibitors to value addition on cotton by-products include: insufficient volumes of cotton production; limited market for finished by-products; the lack of and high cost of capital, which discourages investment; and stiff competition from inexpensive imports, which displaces local production.

Oil expressers' perceptions

Oil expressers acknowledged that cotton by-product value chain is underdeveloped. Their decision to invest depends mainly on the availability of cottonseed as a raw material in sufficient quantities for economies of scale. In their view, inhibitors of by-product value addition include: limited availability of cottonseed; cottonseed oil is dark and needs new technology to purify/lighten it; and such investments lead to preference of soya over cottonseed as a raw material. They also noted that cottonseed oil has the advantage of high smoke point that enables it to withstand a higher temperature than many other edible oils before burning or dissipating.

Feed manufacturer's perception

Feed manufacturers are optimistic about the bright prospects for using cotton by-products to produce stock feeds, given the command livestock programme, pointing to the Presidential Input Scheme and Command Agriculture that are boosting maize, cotton and soya production, as well as the growing interest in raising goats due to high demand from Asian markets (1,000 goats/day).;

Inhibitors of by-product value addition include: limited local demand for beef and dairy feed products; the need for foreign currency, motivating oil expressers to export cottonseed meal, despite unsatisfied local demand for meal; limited local availability of vitamins, minerals and other additives; and low volume of cotton production vs other competing crops.

Feed manufacturers also noted potential risk of overpricing of cotton by-products due to the dominance of one ginner in buying cotton during the 2016/17 marketing season.

Farmers' unions' perceptions

The Survey showed that the major inhibitors of by-product value addition from the farmers unions' perspective include: limited scale of seed cotton production; lack of appropriate small-scale technology-enhancing productivity and on-farm value addition; lack of initiatives (e.g. cooperatives) that assemble required critical mass of raw material and; lack of knowledge on potential value addition activities.

Farmers unions also highlighted that the major inhibitors of seed cotton production include the following: unfavourable producer prices that de-incentivize production; poor agronomic practices; non-adoption of efficient seed technologies (e.g. biotechnology cotton); cotton contracting system which is tilted in favour of the buyers; inadequate input packages provided by ginners; high input costs of production compared to other countries; registration requirements with several institutions that are not centralized and cotton planting seed not readily available in retail shops

Agricultural Marketing Authority's perceptions

The Agricultural Marketing Authority (AMA) noted that the following factors underpinned the decline in seed cotton production: low productivity; inadequate input packages from ginners; late disbursement of inputs by ginners which adversely affect yields and low lint price due to heavy subsidies by major world producers. Furthermore, AMA highlighted they there putting in place regulatory frameworks that ensure fairness and transparency in funding, production and marketing of seed cotton. AMA also observed that Ginners don't submit their returns on input funding, resulting in difficulties in implementing the quota system.

Ministry of Industry and Commerce's perceptions

The Ministry of Industry and Commerce who are mandated with spear heading value addition and beneficiation initiatives observed that major inhibitors to cotton by product value addition include: lack of adequate downstream value addition infrastructure; weak enabling policy and institutional environment to support the development of cotton by-products industries; poor market information on cotton by-products and lack of data to assess viability of opportunities for investments.

The Ministry also highlighted the following initiatives to which the Ministry has put in place to promote value addition: development of Cotton-to-Clothing Strategy (2014 – 2019) and promulgation of Statutory Instrument (SI) 64 of 2016. The Ministry also noted the need to: improve the management and packaging of cotton by-products such as cotton motes and linters; incentivize development of new products such as special paper from linters and other products such as soap and margarine and development of a seed cotton pricing model that rewards quality and contamination free cotton.

2.4 Concluding Recommendations

In his concluding remarks Dr. Chigumira highlighted the following concluding recommendations from the survey:

- Build capacity and knowledge sharing to create awareness on full potential value addition to cotton and cotton-by- products.
- Provide incentives to boost farmers' productivity and create economies of scale for value added activities on cotton- by-products.
- Provide incentives to encourage investment in or adoption of technologies to add value to cotton stalks (e.g. tax credits, SEZ status).
- Build capacity of state actors, industry players and regulatory institutions to address side marketing.
- Develop and multiply seed varieties that result in improved yields.
- Invest in the new technology to remove gossypol from the cottonseed meal.
- Set viable cotton producer prices and improve transparency in the determination of cotton producer prices to eliminate mistrust between farmers and ginners
- Provide adequate input packages comprising of fertilizer, seed, chemicals and tillage support.
- Adopt similar modes of payment (i.e. cash, eco-cash and electronic transfers) and a consensus based public pricing formula as a strategy for avoiding side marketing.
- Reduce farmers' transaction costs by making all cotton inputs readily available in retail shops and reducing the costs of the farmer registration process;
- Rebalance the cotton contracting system which is currently tilted in favour of the contractors, with an adverse effect on farmers' incentives to grow cotton
- Explore and adapt the Ugandan model of a common fund for input provision to the Zimbabwean context to address crowding out and side marketing
- Promote effective monitoring by Ginners technical staff to ensure that inputs provided are accurate for the targeted hectareage and that distribution of inputs is based on historical performance of the farmer rather than the hectareage that the farmer intends to plant.

2.5 Discussants' Comments

The discussants Mr. Pious Manamike Managing Director COTTCO and Mr. Admire Masenda, Director Association of Cotton Value Adders of Zimbabwe (ACVAZ) provided comments on the presentation before the discussion from the floor. Mr. Manamike reiterated the point that cotton production was too low to support all players in the value chain. In this regard, the natural instinct among some of the players is to engage in unorthodox practices to secure the limited crop, contributing to side marketing.

He further noted that farmers need to understand the power that they wield in the value chain, because once a ginner supplies inputs, the power passes to the farmer, who decides whether to plant or not, weed, apply pesticides, harvest, etc. In this regard, farmers' collective decisions will determine the yield and the size of the crop. Given the power that farmers have, Mr. Manamike submitted that the production levels will change if farmers treat cotton production as a business. Ginners are also key players and need to facilitate the increase in production through provision of adequate inputs.

He also highlighted the need for a root cause analysis, focusing on each player in the value chain and how to increase yield and production. He further noted that there is need to understand the reality that cotton is not a cost-plus margin business. In this regard price is given, so one needs to take the price and work backwards, focusing on reduction of cost of production and increasing the competitiveness of the value chain starting with the farmer.

Mr. Masenda also reiterated the fact that the fundamental problem is limited production. He further noted that Zimbabwe is being sold to investors as a cotton growing country, hence the need to examine the return on investment on the support provided to cotton growing. In this regard, he identified the need to retrace our footsteps on what we did well in previous years, when we registered high volumes

of production with less investment. He also noted the need to fight some people's preference for trading activities over production in the cotton fields.

On the way forward, Mr. Masenda noted the need to focus on increasing production and, as production increases, we position ourselves to increase value addition. He emphasized the need for a paradigm shift in the production process. To buttress his point, he gave the example of South Africa, where farmers control the ginners through toll ginning. In this regard, he noted that farmers need to organize themselves to be part of the ginning process. He further noted that in the United States of America, ginners only do toll ginning. To further buttress his point, he gave another example in South Africa, where cotton production, ginning and cattle fattening are an integrated business.

2.6 Floor Discussions

Following the submission by the Discussants, the chairperson facilitated a lively question and answer session. The issues raised from the floor reaffirmed those raised in the paper and by the discussants. The issues on side marketing; the need for the regulator AMA to be impartial; the case of farmers owning ginneries in Zambia; proposal put forward by farmers to facilitate toll ginning; the issue of AMA's recognition of farmers' Unions and not farmer associations like the cotton growers association and the fact that AMA does not allow toll ginning were raised among other issues.

In response the AMA representative gave information and clarified some of the issues raised. For example, the Government encourages farmers to form commodity associations and unions, which are constituted by commodity association to facilitate co-ordination; toll ginning is allowed in Zimbabwe as long as farmers have self-financed/uncontracted cotton and not contracted cotton.

Other issues raised in the floor discussion include:

- The need for policy makers to have a proper definition of food security, especially considering that in some cotton growing areas it is only cotton that grows well, hence cotton growing is a food security issue.
- Lint is the primary product from ginning, but, on average, constitutes only 41% of the total weight of seed cotton. Cottonseed is considered a by-product, but constitutes 58% of total weight, on average. As a result, increased demand for lint can prompt increased production of seed cotton, which also yields more cottonseed. To create economies of scale in cotton by-products, it is therefore important to support the revival of value added activities in the lint value chain.
- Consider clustering farmers to facilitate and increase the viability of value addition of cotton stalks. Egypt was cited as an example to consider.
- A question was also raised on whether farmers unions are capacitated to effectively execute their mandate of representing farmers and adequately articulating farmers concerns at the grassroots level. Participants noted that farmers unions have weak capacities they also need capacitation. For example, farmers unions need to be capacitated to be able to visit farmers and educate them of any policy, legislative and regulatory changes that affect farmers' operations.
- The meeting was also informed of the formation of the Federation of Farmer's Unions, operating under a joint presidential council, with a view to come up with a unified voice. However, some farmers and union representatives raised concerns of inadequate consultations leading to the formation of the Federation.
- Stalks being put in kraals to produce manure reduces the farmer's fertilizer costs.
- Need outreach to encourage and educate farmers on alternative uses of stalks as manure;
- The supply of motes is inversely related to lint grades – there is greater supply of motes when the quality of seed cotton is low. Nevertheless, motes are an unavoidable loss that are currently in short supply, but that are likely to increase along with seed cotton production.

- Cottonseed meal is not readily available on the market as it is purchased by dairy farmers before its production.

3. Increasing Seed Cotton Production in Zimbabwe

Mr. Godfrey Buka, Consultant and former Director General, Cotton Ginners Association presented a paper which sought to examine ways to increase seed cotton production. He highlighted that the country registered a record crop was 353,000 MT in the 2000/01 season. The long term annual average was then 250 000 MT. In 2011/12 production was 351 000 MT in response to rising international lint prices, while in 2012/13 international lint prices declined, resulting in downward trend to 144 000 MT. In 2013/14 and 2014/15 production remained low at 143 000 MT and 104 000 MT respectively and in 2015/16 production plummeted to record low of 28 000 MT. In 2016/17, production rebounded to a meagre 71 000 MT. Given this trend, Mr. Buka asked the question: “how can the downward trend in cotton production be sustainably reversed?”

His analysis showed that growth impediments include: low producer price; lint price volatility, given that cotton producers are price takers on the international market; the high cost of production in Zimbabwe, with costs denominated in US dollars, making them higher than in neighbouring countries; competing crops, e.g. maize and tobacco; low yields due to climate change, poor agronomic practices and inputs diversion; parallel, competing input schemes, i.e. the Government’s free input scheme versus the ginners’ contract farming model, which fuels loan defaults. Given this scenario Mr. Buka posed another question-“*what can be done to mitigate negative factors affecting production?*”

Mr. Buka also observed the following practices from a select group of cotton producing countries:

- Brazil - direct subsidies to producers based on guaranteed prices - Equalization price paid to Producers (PEPRO – Prêmio equalizador pago ao Produtor);
- India - Minimum Support Price (MSP) system, guarantees support when prices are low; and
- China - direct purchases to build up strategic cotton reserves in addition to controlling import volumes and value – also gives minimum support price to farmers.

In terms of value addition opportunities, Mr. Buka identified the following: primary processing: maximise use of ginning capacity; reviving the textile industry to grow lint to yarn spinning business; converting ginned seed to edible oils to meet growing domestic demand; conversion of cottonseed meal to stock feeds to support live-stock industry; increase production of cotton seed to facilitate conversion of cotton seed oil to margarine and soaps to satisfy domestic demand; producing cotton wool, candle wicks and mops to meet domestic demand in tandem with population growth; producing pulp and paper from cotton stalks for industrial and commercial markets; using cotton stalks for production of organic fertilizers to maintain soil fertility and structure. Based on these opportunities Mr. Buka asked yet another question: “*how can the industry exploit value-addition of by-products?*”

In his concluding remarks he observed that there are three Cs in the strategy to increase cotton production: -we need to make a choice –and take a chance –if we want anything to change and we will be sure to succeed.

3.1 Floor Discussion

Most of the issues raised reinforced the issues raised in Session 1 and addressed the questions raised by Mr. Buka in his presentation:

- What can be done to mitigate negative factors affecting production?
- How can the downward trend in cotton production be sustainably reversed?
- How can the industry exploit value-addition of by-products?

The key consensus that emerged from the discussion of this presentation is the need to reverse the downward production trends and increase production of seed cotton, which is fundamental to attracting investment in cotton by-products value addition.

4. Identification of an Oversight Committee

Mr. Masenda chaired this session, which focused on identifying an oversight committee. The participants agreed that the detailed action plan should be developed based on the issues identified. The implementation of the action plan will be overseen by a Multi- Stakeholder Oversight Committee, which will be chaired by the Permanent Secretary of Industry and Commerce or her nominee. The following organisations or groups were proposed as committee members: ACVAZ; AMA; Ministries of Agriculture, Industry and Finance; CRI; Farmers; Ginners; Oil expressers; Stockfeed manufacturers; Agritex; ZimTrade and ZIA. The committee will be proposed to the PS who will provide further guidance on the criteria for membership of the oversight committee. It was agreed that ACVAZ will spear head the establishment of a stabilisation fund and UNCTAD committed to finalise and share with the PS of the Ministry of Industry and Commerce.

5. Priority Cotton By-products for Development

Mr. Mukura, University of Zimbabwe Economics department was the facilitator of this session and he started by summarising issues that had been agreed on in Day 1. It was also agreed to collapse sessions 4 and 5 into a single session.

Mr. Mukura then proceeded to invite Mr. Kris Terauds to provide a summary of the presentation sent by Dr. P.G. Patil, Director, Central Institute for Research on Cotton technology (CIRCOT). Mr. Terauds's summary focused on the sections on de-gossypol technology and cotton stalks, skipping the ones on linters and comber noil cotton, as volumes for these two by-products are of insufficient scale in Zimbabwe to be considered. Participants were advised that the full presentation on "Priority Cotton By-Product Activities for Development" will be made available on the UNCTAD Project website. The full paper discusses other issues such as: possibility of by-products preparations from cottonseed meal in Zimbabwe (2016-17); linters from cottonseed: India's experiences; nanocellulose from Cotton Linters; applications of nanocellulose; industrial applications of short staple/comber noil cotton;

Mr. Terauds highlighted that cotton stalks in India are used for the production of: particle boards; corrugated boxes; briquettes; pellets; compost and mushroom on cotton stalks. He also highlighted the de-gossypol technology that is being developed and piloted by CIRCOT.

Mr. Terauds summarised the business cases provided by Dr. Patil, incorporating seed cotton production figures for Zimbabwe, for a) de-gossypol technology for cottonseed meal and b) a range of products derived from cotton stalks. The participants noted that the capital investments required to purchase the technologies from India were feasible. Moreover, they viewed positively that the Indian technologies were small in scale and therefore adaptable to the lower density of cotton production in Zimbabwe. Nevertheless, the group also noted that the operational costs given in the business case may need to be re-evaluated for the Zimbabwe context, as lower density may increase the costs to transport stalks to a processing plant.

5.1 Floor Discussion

The ensuing discussion generated a lot of interest on exploring the use of the de-gossypol technology motivated by the CIRCOT pilot case in India. Nevertheless, a number of issues were raised during the discussions. These include the following:

- o There is need to change government policy on the treatment of stalks to allow commercialisation of value addition of stalks. Current policy encourages burning of stalks to control pest;

- Cost of transporting stalks to the processing plant and potential risks for the spread of pesticides were raised; prospect of having mobile chipping machines and transporting semi-processed stalks were also raised.
- Profitability of processing stalks is determined by the transportation/logistics costs. There is need to draw lessons from other pilot projects, e.g. a UNIDO pilot project in Egypt.
- It was noted that the cost of the technology is within reach, thus the capacity to import technologies was not considered as a major challenge;
- On pest management, the need for pest risk analysis prior to changing of policy was raised; it was also noted that the issue of changing policy can be put as a proposal supported by evidence on the cost and benefits and the process will go through the normal government policy processes.
- In addition to pest risk analysis, it was noted that a stalk value addition study which assesses the economic viability and locational issues needs to be conducted;
- Use of stalks to manure – needs to be supported by a pest risk control analysis;
- Residual pesticides in stalks can also affect mushroom production - mushrooms need to be safe for human consumption. Again the need for pesticide risk analysis was identified;
- The department of Research and Specialist Services in the Ministry of Agriculture was identified as the Institution that should spearhead the pest risk analysis to facilitate commercialisation of cotton stalks.

6. Strategies for Developing Priority Cotton By-Products

Mr. Simon Matsvai Director, Symacon Solutions facilitated this session. He started by asking the question “why are we doing this?” A number of points were raised in responses to this question which include:

- Creating jobs;
- Increasing profitability of players in the value chain;
- To eradicate poverty and improve the livelihood of the farmer and reduce cost of production;
- Chasing the dollars- need to extract the most out of cotton-maximise value of raw material- whoever has the seed should maximise;
- Creating value for stakeholders along the chain;
- Improving welfare and productivity; increasing national output by unlocking value;
- Import substitution;
- Diversification; creating synergies of complementary activities;
- Value addition-at farm level- food and nutrition security;
- Impact positively on trade balance through exporting value added products;
- Mutual benefit for different players on the value chain;
- Exploring potential uses of cotton and optimising value by value adding cotton by-products.
- UNCTAD-to promote strong and sustainable economic growth-all stakeholders along the value chain;
- Stalks-renewable source of energy and elimination of waste;
- Need awareness of the value of the crop;

The following priorities were identified and agreed upon:

Priority 1: Cotton stalks - briquettes; pellets; manure; mushrooms and compost

Priority 2: De-gossypolisation of cottonseed meal for poultry and fishery

The priorities entail developing a new value chain for cotton stalks and its potential by-products: briquettes; pellets; compost; and mushroom growing on cotton stalks. De-gossypolisation extends the market of cottonseed meal to use in stockfeed for non-ruminants.

In order to realise the potential benefits from the identified priorities, the participants agreed that the national action plan should address the following elements for each priority:

- o Identification and acquisition of appropriate technology and equipment;
- o Education and capacity building of stakeholders in the value chain;
- o Co-operation within the value chain;
- o Information dissemination to create awareness; policy advocacy;
- o Infrastructure; markets; funding; paradigm shift; adequacy of raw Material;
- o The group raised the need to demonstrate the business case for adding value to stalks and removing gossypol from cottonseed meal.

7. National Action Plan to Develop Cotton By-Products

This session was chaired by Mr, Admire Masenda. Participants agreed by consensus on the following elements of a draft national action plan to develop cotton by-products in Zimbabwe. As organisers of the workshop, UNCTAD will draft these into a final version, for submission to the Ministry of Industry and Commerce.

The agreed elements of a national action plan are:

1. Foster increased seed cotton production by exploring the establishment of a stabilisation fund for cotton prices. This initiative will draw on and continue the work begun by ACVAZ on this topic. Participants agreed that ACVAZ should lead this initiative, facilitated by the Ministry of Agriculture and AMA.
2. Develop a new value chain for cotton stalks, including processes, techniques and machinery to produce, for example: briquettes; pellets; mushrooms; compost and manure.
3. Extend the market for cottonseed to the non-ruminants feed sector by implementing de-gossypol technology in Zimbabwe
4. The detailed strategies for these two product groups – based on stalks and de-gossypolised cottonseed meal – will include the following elements: technology, techniques and innovation; the business case, including sustainability, markets, standards and piloting of the strategies; capacity-building, knowledge, skills and information; cooperation, partnerships and coordination among stakeholders; policy; and infrastructure.
5. This plan will be overseen by a multi-stakeholder committee, composed of representatives from the following organisations or groups: ACVAZ; AMA; Ministries of Agriculture, Industry and Finance; CRI; Farmers; Ginners; Oil expressers; Stockfeed manufacturers; Agritex; ZimTrade and ZIA.
6. This committee will be proposed to the Secretary of Industry and Commerce. She will be invited to chair the committee and to set membership criteria, e.g. the appropriate expertise, rank and decision making authority of members.
7. The committee will use its first meeting to detail its mandate, to engage important partners and to raise awareness and buy-in for these initiatives.
8. Furthermore, it is understood that the three above initiatives represent the committee's initial remit. As it begins working, the committee can also begin to undertake other important initiatives

to overcome challenges to the development of value added activities on cotton by-products in Zimbabwe.

7.1 Next Steps

- UNCTAD to draft the final version of this draft national action plan, for approval by the Secretary of Industry and Commerce.
- As the oversight committee is formed, it can begin detailing the plan's implementation.
- In the context of this technical cooperation project, UNCTAD to support this plan with:
 - Secretarial support;
 - Advisory services; and
 - Investment profiles.

8. Policy Workshop Outcomes

The session was chaired by Dr. Dumisani Kutuywayo, Director, Research and Specialist Services Department in the Ministry of Agriculture who provided some brief remarks on the focus of the policy workshop. He passed the floor to Dr. Chigumira. Following a recap of the survey results, Dr. Chigumira proceeded to review the main policy gaps that arose from the survey.

8.1 Gap Analysis

It was noted that to implement the draft national action plan on developing cotton by-products in Zimbabwe, policy makers need to address the following policy gaps:

Gap 1: Institutional structure and policy framework

- Is the current set of institutions fit for purpose?
- Are the mandates of the different institutions coherent? Taken together, are they sufficient?
- What additions, adjustments or replacements are needed to the institutions and their mandates?
- Similarly, what additions, adjustments or replacements are needed in the policy framework set by these institutions?

Gap 2: Seed cotton production model

- Is the current funding model for cotton cultivation – by which the Government and/or ginners finance the provision of inputs to farmers –adequate and effective?
- What policy measures can provide some stabilisation and/or predictability of the producer prices that ginners pay to farmers?
- How can policy contribute to improving yields in cotton cultivation?
- How can policy contribute to improve pest management in cotton cultivation?
- How can Government better support research and development (R&D) initiatives for cotton, for example developing new seed varieties adapted to climate change?
- How can extension services be improved to provide specialist agronomic support to cotton farmers?

Gap 3: Value addition

- How to import and adopt value addition technologies for cotton by-products?
- What policies are needed to ensure that any increased demand for cotton by-products translates into greater incentives, including higher prices, which encourage farmers to grow more cotton?

Other gaps

- What incentives can the Government offer to increase investment in the cotton by-products sector?
- What channels and methods can help better disseminate market information and good agronomic practices to farmers?
- Does Zimbabwe need a consensus pricing model? If so, how can Government ensure that it is transparent and well communicated?
- Does Government need to revise contract farming guidelines to balance bargaining power between ginners and farmers?
- How can the Government ensure that its free inputs scheme contributes to increased seed cotton production?
- Should the Government use trade policy to protect the domestic edible oil sector from inexpensive imports of palm oil? To protect the garments sector from imports of second-hand clothing?
- What policies can help combat side marketing in the cotton sector?

During the discussion that followed the presentation, participants raised the following considerations for policy recommendations:

General

In addition to better policies, R&D programmes require greater and more reliable resources – there was a suggestion to include an R&D levy in the funding model for cotton inputs.

- Policies to reduce imports of edible oils will not only help support domestic industry, but also reduce Zimbabwe's trade deficit.
- The business case must be made convincing before publicising any of the investment proposals on cottonseed meal and/or cotton stalks.
- Zimbabwe may need a national policy for agro-processing clusters, similar to examples in Ethiopia or Mauritius – these clusters could include plans for value added activities on cotton by-products.
- Before investing in these technologies, we need to engage the downstream users – e.g. stock-feed producers for cottonseed meal and industrial and restaurant users for cotton stalk briquettes / pellets – to understand the specifications they need to use these products as inputs.
- Proposals should refer to the recent study by the Ministry of Industry and Commerce on the feasibility of investments in cotton by-products.

Zimbabwe's 2014-19 Cotton-to-Clothing Strategy

- The project's draft national action plan and policy recommendations should refer to, and conform to Zimbabwe's 2014-19 Cotton-to-Clothing Strategy.
- Admire Masenda briefed the group on the progress of the implementation of the c-t-c strategy:
 - Hired a consultant to propose a pricing model for cotton producer prices.
 - Worked with Agritex to develop a train-the-trainer programme for extension officers.
 - Establishment of Chitungwiza Garment Incubation Centre.
 - In the process of procuring an HVI analysis machine for CRI.
 - Proposed a project to USAID to fund small-scaled irrigation.
 - Working on a smartphone app to deliver extension materials to farmers.

Cottonseed meal

- o For oil expressers, cottonseed meal is, in fact, their primary product.
- o Given that expressers consume a number of oilseeds, any recommendations for cottonseed should be part of a coherent government oilseeds strategy.
- o A cottonseed meal strategy should engage the stock feed and cattle sectors, to ensure effective demand incentives.
- o Before investing in de-gossypol technology, we need a laboratory and industrial analysis of the consequences of removing the gossypol.

8.2 Best practices

Dr. Chigumira began the session by reviewing the main features of the technologies contained in the presentation sent by Dr. Patil of CIRCOT. Several participants also raised, in a general way, the established cotton by-products sectors in China and Egypt as examples to consider for this project.

Mr. Kris Terauds of UNCTAD then outlined the main features of Uganda's common-pool funding model for providing inputs to cotton farmers. The pool is administered by the Cotton Development Organisation (CDO), the regulator. It provides a standard input package to farmers. Ginners contribute to the pool at the beginning of the season, with amounts based on their previous year's purchases. The common-pool model has effectively removed competition among ginners based on the input schemes they offer, leaving them to compete on price. CDO reports that some side marketing still occurs in Uganda, but these are isolated and often involve trader-to-ginner competition, rather than ginner-to-ginner. Moreover, at a focus group organised by CDO for the UNCTAD team, farmers did not identify the input package they receive, or prices, as major concerns when they make their cropping decisions with respect to cotton.

9. Closing Session

The closing session was facilitated by Dr. Dumisani Kutuywayo. Participants agreed by consensus to recommend, to the Government of Zimbabwe to consider the following policy recommendations, to support the development of value added activities on cotton by-products in Zimbabwe:

1. Enable the use of cotton stalks in value added activities

Participants noted that the Plant Pests and Diseases Regulations of 1988 which requires farmers to destroy cotton stalks, principally by burning them, to prevent the spread of pink bollworm would militate against value addition of cotton stalks. Thus, using cotton stalks in value added activities would require that the Government amend the regulation requiring the destruction of cotton stalks. The benefits of developing the value added activities on cotton stalks were noted during the throughout the workshop and lessons were drawn from the Indian experience.

2. Favour the acquisition and adoption of appropriate technologies to add value to cotton by-products

Participants identified two of these technologies with commercial potential in Zimbabwe, namely: a) a sequence of machines that enable the processing of cotton stalks into a range of products; and b) a chemical process that removes the enzyme gossypol from cottonseed meal, allowing it to be used in stockfeed for non-ruminants, such as poultry, pigs and fish. In the case of cotton stalks, these technologies are often small in scale and relatively affordable, making them suitable for use in rural areas, either directly by farmers or by rural collectives. Adopting these technologies in Zimbabwe would require that the Government facilitate their importation and their adaptation to local rules and end user requirements. Policies also need to support training in the operation and maintenance of these technologies, as well as the building the capacity to manufacture them locally.

3. Establish a consensus pricing model for seed cotton producer prices

Survey results showed that farmers identified the lack of a transparent pricing model as a disincentive to grow cotton, as well as a point of contention in their relationship with ginners. Furthermore, the absence of a consensus pricing model makes it a competitive risk for ginners to announce pre-season indicative prices to farmers. The latter group identified the resulting lack of visibility as a further risk and disincentive to grow cotton.

More generally, the absence of a clear pricing model prevents farmers from ascertaining whether they receive their due share of any value added to cotton by-products.

4. Favour self-sufficiency in oilseeds and edible oils

In the Survey results oil expressers noted an uncoordinated policy framework for oilseeds, with incentives and policies varying, or even competing, among different crops, thus complicating oil expressers' efforts to procure the feedstock they need from among the oilseed crops. As for oil refiners, they often find it more profitable to use cheaper imports of crude edible oil, rather than buying locally, while there is underutilised crushing capacity because of lack of oilseeds feedstock.

Increasing production of oilseeds may require a holistic oilseeds strategy, that incentivises production and value addition of oilseeds which will not only increase food security; reduce the import bill but will also improve predictability of farmer cropping decisions and incomes.

5. Establish a unified, public-private funding model for increased productivity and production of seed cotton

The key constraint to value addition of cotton by products noted in the survey was low production and productivity. The merits and demerits of the funding mechanisms were discussed at length including factors inducing side marketing and the Ugandan experience. Participants noted the need to resolve the competition between the parallel input schemes in the cotton sector. This would require the Government to consider the establishment of a unified, public-private funding model that capitalises on the comparative advantages of the two providers. For example, with the Government supplying the free or subsidised inputs and having ginners distribute them and monitor their use, through their established contract arrangements and buying networks.

In concluding the lively policy session Dr. Dumisani Kutywayo reiterated the key actionable points raised during the discussion and institutions that should lead in developing these policy ideas further. He concluded his remarks by thanking the conference organisers in particular UNCTAD for providing the financial support. He also thanked all the participants for their insightful contributions and experiences shared. He noted that as the Committee begins to work it will consider what else needs to be done to advance the cotton by-products value addition agenda.

Annex 1: Workshop Programme

PROGRAMME National capacity-building workshop 27-29 September 2017, Harare, Zimbabwe

Day 1

8:00-8:45 Registration of participants

8:45-10:30 Opening session

Chairperson: Dr. Isaiah Mharapara, CEO, Agricultural Research Council
Introduction to the project: Ms. Yanchun Zhang, Chief, Commodity Policy Implementation and Outreach Section, UNCTAD
Remarks from UNDP: Mr. Amarakoon Bandara, Economic Advisor, UNDP Zimbabwe
Remarks from UNECA: Mr. Komi Tsowou, Economic Affairs Officer

10:30-10:45 Coffee break

10:45-12:30 Session 1: Presentation of survey results

Chairperson: Dr. Isaiah Mharapara, CEO, Agricultural Research Council
Survey results: Dr. Gibson Chigumira (author)
Discussant: Mr. Pious Manamike, Managing Director, COTTCO
Discussant: Mr. Admire Masenda, Director, Association of Cotton Value Adders of Zimbabwe (ACVAZ)
Moderated discussion

12:30-14:00 Group photo, followed by lunch

14:00-16:00 Session 2: Increasing seed cotton production in Zimbabwe

Chairperson: Dr. Isaiah Mharapara, CEO, Agricultural Research Council
Expert presentation: Mr. Godfrey Buka, Consultant, former Director-General, Cotton Ginners Association of Zimbabwe (CGAZ)
Discussion
Agreement of recommendations
Deliverable

16:00-16:30 Coffee break

16:30-17:30 Session 3: Identification of an oversight committee

Chairperson: Mr. Admire Masenda, Director, Association of Cotton Value Adders of Zimbabwe (ACVAZ)
Deliverable

Day 2

8:45-10:30 Session 4: Priority cotton by-products activities for development

Facilitator: Mr. Tendai Makova, Economics Lecturer, University of Zimbabwe
Expert presentation: Dr. P. G. Patil, Director, Central Institute for Research on Cotton Technology (CIRCOT), India (delivered by UNCTAD)

10:30-10:45 Coffee break

10:45-12:30 Session 5: Priority cotton by-products activities for development (continued)

Facilitator: Mr. Tendai Makova, Economics Lecturer, University of Zimbabwe

12:30-14:00 Lunch

14:00-15:30 Session 6: Strategies for developing priority cotton by-product activities

Facilitator: Mr. Simon Matsvai, Director, Symacon Solutions
Priority product 1: Cottonseed meal with gossypol removed
Priority product 2: Products derived from cotton stalks
Deliverable

15:30-15:45 Coffee break

15:45-17:15 Session 7: National action plan to develop cotton by-products

Chairperson: Mr. Admire Masenda, Director, Association of Cotton Value Adders of Zimbabwe (ACVAZ)
Discussion of strategies
Formulation of draft national action plan¹
Deliverable

17:15-17:30 Closing session

Chairperson: Dr. Dumisani Kutwayo, Director, Research and Specialist Services, Ministry of Agriculture
Adoption of deliverables

¹ Including both recommendations to increase seed cotton production (Session 2) and strategies for developing priority cotton by-product activities (Session 6).

Day 3

Policy Workshop, 29 September

8:45-10:30 Opening session

Chairperson: Dr. Dumisani Kutwayo, Director, Research and Specialist Services, Ministry of Agriculture

Survey results: Dr. Gibson Chigumira (author)

Draft national action plan: Mr. Admire Masenda, Director, Association of Cotton Value Adders of Zimbabwe (ACVAZ)

10:30-10:45 Coffee break

10:45-12:30 Session 1: Gap analysis

Facilitator: Dr. Gibson Chigumira, Executive Director, ZEPARU
Cotton cultivation and cotton by-products value addition

12:30-14:00 Group photo, followed by lunch

14:00-15:30 Session 2: Best practices

Facilitator: Dr. Gibson Chigumira, Executive Director, ZEPARU
Discussion

15:30-15:45 Coffee break

15:45-17:15 Session 3: Policy proposals

Chairperson: Mr. Collen Kabudura, Deputy Director, Ministry of Industry and Commerce

Cotton cultivation
Cotton by-products value addition
Deliverable

17:15-17:30 Closing session

Chairperson: Mr. Collen Kabudura, Deputy Director, Ministry of Industry and Commerce

Adoption of deliverables

Closing remarks: Dr. Dumisani Kutwayo, Director, Research and Specialist Services, Ministry of Agriculture

Contacts

General information on the project, including the project document, background materials and activity reports, can be found at the project site:

<http://unctad.org/en/Pages/SUC/Commodities/SUC-Project-1617K.aspx>

Please address specific inquiries to the following UNCTAD staff members:

Project Leader:	Ms Yanchun Zhang Chief, Commodity Policy and Outreach	yanchun.zhang@unctad.org Tel: +41.22.917.5790
Project Officer:	Mr Kris Terauds Economic Affairs Officer	kris.terauds@unctad.org Tel: +41.22.917.5931
Logistics and administration:	Ms Danièle Boglio	daniele.boglio@unctad.org Tel: +41.22.917.6286

Annex 2: List of Participants

Number	Mr Ms	First Name	Last Name	ORGANISATION	DESIGNATION
1	Mr	Bgwirire	Anthony	Ministry of Industry and Commerce	Principal Economist
2	Mr	Godfrey	Buka		Consultant
3	Mr	Blessing	Chapepa	Cotton Research Institute (CRI)	Research Officer
4	Mr	Peter	Chapoterera		
5	Mr	Regis	Chigome	Cotton Farmer	Midlands Farmer Representative
6	Dr	Gibson	Chigumira	ZEPARU	Director ZEPARU
7	Mr	Collins	Chihuri	ZEPARU	
8	Mr	Douglas	Chikabwi	Ministry of Industry and Commerce	Economist
9	Mr	Stephen	Chiname	MolC	Economist
10	Mr	J	Chindanya	ETG Parrogate	Business Head
11	Mr	Jabulani	Chisipo		
12	Mr	Providence	Chitiki	Midlands State University	Economist
13	Mr	Munyaradzi M	Chitsa	Ministry of Industry and commerce	Economist
14	Mrs	Rejoice	Dera	ZITMA	Administrator
15	Mr	Edward	Dune		
16	Ms	Keresia	Dune		
17	Mr	Wilson	Gowora	Ministry of Industry and Commerce	Economist
18	Mr	Raymond	Huni	ACVAZ	Secretary General
19	Mr	Tamuka	J.Mukura	U.Z	Economist
20	Mr	Francis	Jimu	Cotton Research Institute (CRI)	Deputy Director
21	Mr	Admire	Jongwe	Zimtrade	Client Advisor
22	Mr	Collen	Kabudura	Ministry of Industry and Commerce	Deputy Director
23	Mr	Albert	Kuchera	Cotton Farmer	Manicaland Farmer Representative
24	Mr	Kerdington	Kusena		
25	Dr	Dumisani	Kutywayo	Ministry of Agriculture, Mechanization and Irrigation Development	Director
26	Ms	Hazel	Magumise	Ministry of Industry and Commerce	Principal Economist
27	Ms	Isabel	Magumise	Knowledge TransAfrica	Project Officer
28	Mr	Pious	Manamike	COTTCO	Managing Director
29	Mr	Lovemore	Mangove	Cotton Farmer	Mash Central Farmer Rep
30	Mr	Alpha	Manjera	Zimbabwe Farmers Union	Midlands Manager

Number	Mr Ms	First Name	Last Name	ORGANISATION	DESIGNATION
31	Mr	Martin	Maphosa	Agricultural Marketing Authority	Marketing and Economic Research Officer
32	Miss	Amanda	Marama	A.M.A	Economist
33	Mr	Courage	Marange	ZFU	Manager
34	Ms	Gamuchirai	Masamadya	Ministry of Agriculture, Mechanization and Irrigation Development	Principal Economist
35	Mr	Admire	Masenda	ACVAZ	Director
36	Mr	Paul	Mashambe	Ministry of Small and Medium Enterprises	Principal Business Development Officer
37	Mr	Malvern N	Matimati	Midlands State University	Economist
38	Mr	Wellington	Matsika	ZEPARU	Research Fellow
39	Mr	Simon	Matsvai	SYMACON	
40	Mr	Dr Isaah	Mharapara	Agriculture Research Council	Chief Executive Officer
41	Mrs	Elizabeth	Mhembere	Ministry of Industry and Commerce	Executive Assistant
42	Mr	Ronald	Mhlanga	ZIMSTAT	Statistician
43	Mr	Kevin	Msipha		
44	Mr	Raphel	Muchuchu	Cotton Farmer	Midlands Farmer Representative
45	Mr	Felix	Mufunda	Ministry of Finance and Economic Development	Principal Economist
46	Mr	Stephen	Mulhaha		
47	Mr	Kudakwashe	Munyanyi	Economist	ZFU
48	Mr	Kelvin A	Mutede	Ministry of Industry and Commerce	Principal Economist
49	Ms	Shupikai	Mutyambizi	MAMID	Economist
50	Mr	Anxilla	Ndaona	MoFED	Snr Economist
51	Mr	Tapiwa	Nyamakura	Z.F.U	Mash Central Manager
52	Mrs	Sylvia	Nyamakwenje	ZIMSTAT	Chief Research Officer
53	Mr	Ishmael	Pande	Cotton Farmer	Mash West Farmer Representative
54	Mr	Washington	Ranga	ZIA	
55	Miss	Minia	Rukucha	ZNFU	Marketing.
56	Ms	Minia	Rukuchy		
57	Mr	Mukura	Tamuka Joel	UZ	Economist
58	Mr	Jeremiah	Terera	ZCFU	Director
59	Mr	Temany	Utete	CACZ	Administrator
60	Mr	Joe	Vas	Twine & Cordage	Factory Manager