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COTTON STATISTICS & NEWS

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Cotton Exchange Building, 2nd Floor, Cotton Green, Mumbai - 400 033
Phone: 30063400 Fax: 2370 0337 Email: cai@caionline.in
www.caionline.in

Speech of Shri. Dhiren N. Sheth, President, Cotton Association of India at the 94th Annual General Meeting on Saturday, the 31st December 2016

Dear Members,

With immense pleasure and great honour, I extend a very warm and hearty welcome to you all to this 94th Annual General Meeting of our Association.

You already have with you the Directors' Report and the Audited accounts of our Association for the year ended 31st March 2016 along with the auditors' report containing the brief summary of activities and the financial results of the Association. With your permission, I take them as read.

Friends, before I proceed to deal with the agenda of today's AGM, I wish to give you all good news. The Securities and Exchanges Board of India (SEBI) has officially announced our formal exit from the purview of the Securities Contracts (Regulation) Act by issuing an Order dated 29th December 2016. The decision to de-recognise our Association from the purview of the FC (R) Act was taken by our Board of Directors in the year 2009. This decision of our Board was also ratified by our members at the Extra-ordinary General Meeting held in the year 2012. An official Order from SEBI brings conclusion to the long standing issue of de-recognition which we had sought for the last several years.

I would now like to share with you some of my thoughts on the economic scenario of our country in general and the cotton sector in particular.

Indian Economic Growth An Envy Of The World

The Indian economy registered a slowdown in growth during 2016. Industrial production in the country went down by 1.9 percent year-on-year in October 2016, following 0.7 percent growth in the previous period and worse than market expectations of a 1 percent gain. This slowdown was however not sufficient for the Indian economy to lose its tag of being the fastest growing economy of the world. In fact, India is hailed as a bright spot amidst a slowing economy by no less than the International Monetary Fund (IMF). The country has one of the fastest growing service sectors in the world. The Indian economy has also achieved for the first time the distinction of topping the World Bank's growth outlook for 2015-16.

CAI wishes all Our Readers A Happy and Prosperous New Year

As per the advance estimate of the Central Statistics Office, the growth rate of India's Gross Domestic Product (GDP) at constant market prices has been estimated at 7.60 per cent in FY 2015-16 as against the growth rate of 7.2 per cent recorded in the previous year. The growth in the Gross Value Added (GVA) at constant basic prices has been estimated at 7.3 per cent in 2015-16 as opposed to 7.1 per cent in 2014-15 - with agriculture and other allied sectors, the industrial sector and the service sector growing at 1.1 per cent, 7.3 per cent and 9.2 percent respectively.

The long term growth prospects of the Indian economy are very positive due to its young population and a relatively low dependency ratio. Various policy initiatives of the Government that laid emphasis on the path of reform, augur well for the Indian economy and it is expected to grow at over 8 per cent. The two very important policy initiatives of the Government that instantly come to my mind at this juncture are the Goods and Services Tax (GST) and the recent demonetisation announced by the Hon'ble Prime Minister of India showing his deep commitment to provide clean governance. These are welcome steps in right direction and are expected to result in a widening of the tax base. Besides, these policy initiatives are expected to have a good impact on the Indian economy in the long term.

Growth of Indian Agriculture And The Allied Sector Critical For Poverty Alleviation And Equal Distribution of Wealth

Friends, as you all are well aware, a majority of the Indian population lives in villages and depends on agriculture as the prime source for earning its livelihood. The agricultural sector in India plays a strategic role in the process of economic development. The growth of this sector tends to contribute substantially to the overall economic development of the country and therefore, it is critical for attaining the twin objectives of the Government viz. the poverty eradication and inclusive growth in the country. No wonder then, that this sector is accorded top priority and special focus by the Government.

In its Budget 2016–17, the Government provided for a slew of measures for improving agriculture and increasing farmers' welfare. These measures included 28.5 lakh hectares to be brought under irrigation, allocation of Rs. 35,984 crore for agriculture and farmers' welfare, Rs. 287,000 crore grant in aid to be given to gram panchayats and municipalities and 100 per cent village electrification targeted by 1st May, 2018. Further, the Government has set an ambitious target of producing a record 270.1 MT of food grains in 2016-17, which is 7 per cent higher than the 252.23 MT of production estimated for 2015-16. Also, the Government has started work on 99 major and medium irrigation projects, slated to be completed by 2019. These projects will bring 76 lakh hectares of land under irrigation in some of the most drought-prone regions of India.

Given these policy thrusts and various initiatives of the Government, agriculture performance is bound to get a boost in future.

Domestic Cotton Scenario

Friends, cotton enjoys a predominant position among all cash crops in India and thus plays an important part in the Indian agriculture. The cotton sector plays a significant role in the Indian economy by providing sustenance to over 6 crore farmers and workers involved in the cotton industry, right from production, processing, trade and textile manufacturing. The country's textile industry, which is predominantly cotton based, is the second largest employment provider in the country after agriculture.

The production of cotton in the country which had reached a record high of over four crore bales during the 2013-14 crop year fell to about 386 lakh bales in 2014-15. The production of cotton in the country declined further during the 2015-16 crop year to around 338 lakh bales, the lowest during the last five years. This drastic reduction in the crop during 2015-16 was mainly due to the whitefly attack especially in the northern region.

Cotton prices sought lower levels almost during the entire 2015-16 cotton season, resulting in lower realisation of prices by farmers for their produce. This has led to a reduction of over 10% in the acreage under cotton during 2016-17. As per the latest estimates of the Directorate of Cotton Development (DOCD), the acreage under cotton is expected to go down to about 105 lakh hectare during 2016-17 from 118.77 lakh hectares during 2015-16. However, due to the improvement in productivity expected on account of better weather conditions across all cotton growing regions of the country, the country expects to produce about 345 lakh bales during 2016-17.

Productivity of cotton in the country continues to remain well below the world average productivity mark. However, looking to the initiatives taken by the Government and continued research by scientists, one can hope that India would soon achieve the world average productivity mark.

International Cotton Scenario

In its latest report, the ICAC has estimated the production of cotton in the world during the 2016-17 crop year at 22.83 million tons which is higher by 1.76 million tons than the 21.07 million tons in 2015-16. The world cotton consumption for the

cotton season 2016-17 is estimated by the ICAC at 24.25 million tons, higher by 0.05 million tons than the consumption of 24.20 million tons during 2015-16. Thus, according to ICAC, this year also, like last year, the consumption of cotton is going to outpace production. The fall in production during 2015-16 crop year was not anticipated and has led to a 14% decline in both the world ending stocks and in stocks outside of China. This pushed cotton prices up till the end of the last cotton season. International prices have remained high with the Cotlook A index averaging 79 cents/lb during the period from the beginning of the season since bulk of the 2016-17 crop is only just now reaching the international market.

Farewell

Friends, I will be laying down my charge as the President of this august body at the conclusion of this AGM today and this is my last address to you all. After having been on the Board of Directors of the CAI for the last 23 years and the President of this Association for the last 8 years, I have now decided to take a break from the activities of the CAI and will be laying down my charge as the President of Cotton Association of India today after having completed my tenure.

Please do pardon me today if I get emotional.

Eight years ago, when I was bestowed the honour of becoming the CAI President, I was one of the youngest Presidents in the history of the Association. I had the onerous task of meeting the expectations of our members, who had reposed their trust and confidence in me and the high benchmark set by my illustrious predecessors. My late father Shri. Narendra C. Sheth gave me the advice just before he passed away to give back as much as I could as a person, as a family and as a company, to the trade, which had been a source of livelihood to me and my family, since generations. He had also advised me that the best way to do this would be through the Association (CAI). I therefore had the desire to contribute my might for the welfare of the cotton trade through our Association. With my experience of working as a Director of the CAI before taking charge as its President, I had in my mind the sketches of several ambitious plans for the betterment of the cotton trade in general and the CAI in particular. However, I required a team to take my ideas to fruition and here I have no qualm in admitting that I was extremely fortunate to have had a team of the most dedicated Directors on the Board who marched with me in close unison, step by step and toiled hard in implementing my ideas with the utmost dedication and sincerity. My team and I relied on the Committee culture, by involving more and more members in the decision making process at the CAI. Again I wish to place on record that all the Committees worked very diligently in discharging the onerous responsibility cast on them.

It was only due to the concerted efforts of my team that I could achieve whatever success I could during my tenure at the CAI.

Steps For Enhancing The Efficiency And Effectiveness Of CAI In Serving The Cotton Sector

In order to enhance the efficiency and effectiveness in the services rendered at the CAI, my team and I focused on some of the following key areas during my tenure:-

- The key distinctive features which separate our Association from the rest are the fixation of spot rates, the preparation of grade standard boxes and the arbitration mechanism for dispute redressal. During my tenure as the President of this august body, I laid greater emphasis on strengthening the processes of fixing spot rates, preparation of grade standard boxes and the arbitration process. We made several reforms and provided various checks and balances to ensure that these services are provided at the CAI in a cost effective manner and with utmost precision. I am happy to report that due to the efforts put in by the concerned committees over the years, we have been able to acquire greater proficiency and are now internationally acclaimed/recognised insofar as these services are concerned.

- The world-over, trading of cotton is done on the basis of quality parameters. In order to be in sync with this trading norm and looking to its crop size, our country requires a huge boost in infrastructure. Our Association took the initiative in converting this challenge into an opportunity and set up eleven laboratories across the country, with one more laboratory in the pipeline. Apart from providing cotton testing facilities to the

cotton community at various cotton growing centres locally in a cost effective manner, these laboratories also work as regional centres of our Association and provide other services to the cotton sector in their respective regions. As I said before in my previous addresses, it is my desire to make the testing results of our Association a seal of approval and I draw satisfaction from the fact that the network of the CAI laboratory is working in the right direction in achieving this goal in the near future.

- Producing accurate estimates of crop numbers regularly is a key to success for any business. This is another area where the Association has put in some commendable efforts, although there is still enough scope for improvement.

- Globally, cotton is losing its share in textile manufacturing because of the stiff competition it faces from polyester and other manmade fibres. In order to arrest the declining trend of cotton consumption, countries like USA, Australia, Brazil, etc. have effective demand enhancement programmes. After years of hard work, research and planning, we also embarked on the generic promotion of cotton and as a medium, we chose School Contact Programmes (SCP), one of my dream projects. In the pilot phase of SCP, we covered 20 English medium schools in Mumbai across all boards and targeted school children of fifth to seventh standards to create awareness amongst them about cotton and to familiarise them about the benefits of cotton. We have successfully completed the pilot of the SCP this year and it is a matter of great pride that all the SCPs conducted by our Association have received overwhelming response not only from the students, faculty and the parents but also drawn appreciation from the members who were associated with them.

- We also undertook a programme for promotion of Suvin cotton, which is arguably the best cotton in the world and considered to be the 'Jewel of Indian cottons'. Our Association developed a brand named Suvin Ratna under which shirting material made out of Suvin Cotton was introduced to cater to the gifting needs of the members of the Association. This has received overwhelming response from all of you.

- In order to showcase the rich and varied heritage of our cotton, we have started in right earnest our plan of establishing a cotton museum of international standard like the one in Egypt. We have already completed a fair amount of spadework and are at an advance stage of implementation.

- Being a student of two international cotton schools myself, it was my desire to establish a cotton school in India to provide the opportunity to all those aspiring to make a career in cotton, to study about cotton in a cost effective manner without having to go abroad. We have done a considerable amount of research and planning in this area and acquired first-hand experience by conducting one day seminars on various topics of importance to the cotton value chain under our 'Learn with CAI' series. It is now the implementation which is pending. This is now upto the new team to pursue this matter further.

- As is well known, the productivity of cotton in our country is lagging behind the world average and our Association, through its research arm COTAAP Research Foundation, has been undertaking various cotton developmental activities in different parts of the country. We focused on enhancing these activities for the benefit of cotton farmers in Chopda and Raichur. Friends, it is gratifying to note that these activities are receiving wide recognition and appreciation, not only from the farmers but also from the Government agencies as well.

- We also took the initiative to organise international conferences on cotton. The conferences being organised by our Association under the COTTON INDIA series have carved a niche for themselves and created a brand. These conferences have now become a regular feature of the International Cotton calendar and received overwhelming response from the cotton community across the world.

- Most importantly, we worked arduously and succeeded in sensitising the Government about several important issues and problems faced by the cotton sector from time to time. We have succeeded in establishing a closed bond with the officials in various Ministries viz. Agriculture and Cooperation, Textiles and Commerce and Industry. The fact that we succeeded in organising the visits of Dr. K. S. Rao and Shri Santosh Kumar Gangwar, the Hon'ble Ministers of Textiles to our Association speaks volumes about the efforts that my team and I took in building rapport with our parent ministry.

Similarly, there are several such initiatives which my team and I took during my tenure and I am sure that the benefit of these initiatives would start showing in the near future.

I sincerely believe that the SCP, setting up of a cotton school and a cotton museum will bring a

tremendous amount of goodwill to our Association and therefore, I strongly recommend to the new team to consider implementing these visions of mine, if they consider it appropriate.

Acknowledgements

I have been very fortunate to have had the opportunity of working with late Shri Babaseth Mirani, Shri Sureshbhai Kotak and Shri K.F. Jhunjhunwala. Whatever I have been able to achieve during my tenure, was thanks to the able guidance, encouragement and fatherly advice they gave to me. Late Shri Babaseth Mirani brought me to the Board of Directors of our Association at a very young age and I can't thank him enough for this. Shri Sureshbhai Kotak laid the foundation of the ability that I displayed while leading this Association. Also, when I served the Association during Shri Kishorebhai Jhunjhunwala's tenure, I enjoyed so much freedom in conducting the activities of the Association. It was because of this experience that my skills and abilities got sharpened and helped me during my tenure as the CAI President. I shall always remain indebted to each one of them.

In my journey at the CAI, I had been fortunate to have received wide support from the entire cotton fraternity from India and abroad and I take this opportunity to thank them all. Friends, as I have said before, our Association has developed a very close bond with the Government authorities especially with the Ministry of Agriculture and Cooperation, Commerce and Industry and Textiles during my tenure as the President of the CAI. Dr. Kavuru Sambasiva Rao, the Hon'ble Minister of Textiles, Dr. Panabaka Lakshmi, then Hon'ble Minister of State for Textiles and Smt. Zohra Chatterji, the Secretary to the Government of India, Ministry of Textiles visited our Association while they were in office and blessed us with their words of wisdom. I can't thank them enough for this. I am also humbled by the visit of Shri Santosh Kumar Gangwar, the Hon'ble Minister of Textiles to our Association when he was in office and I am indeed grateful to him for his kind gesture. Smt. Smriti Irani, the current Union Minister of Textiles has also been very supportive to me and my team and I take this opportunity to thank her on behalf of all our members, entire Board of the Association and on my personal behalf.

I also wish to place on record our sincere thanks to the Ministries of Agriculture and Cooperation and Commerce and Industry, office of the Textile Commissioner, Cotton Corporation of India, Central Institute for Research on Cotton Technology and the Central Institute for Cotton Research for their support and cooperation to us in various activities of the Association from time to time.

Friends, I owe a debt of gratitude to all our members without whose active involvement and support, I would not have been able to carry out my responsibility as the President of the CAI effectively. It is my humble request to all our members to lend similar support and cooperation to the new CAI team in future. I have no doubt in my mind that the future of this Association is very bright and under the able leadership of the new team, the CAI will scale even greater heights of glory in the years to come.

I also express our sincere thanks to all our upcountry associations and cooperative cotton marketing societies for their invaluable support and assistance to us from time to time.

I wish to convey my sincere thanks to my fellow office bearer Shri Rishabhbhai Shah, the Hon. Treasurer and our erstwhile Additional Vice President Shri Bhadreshbhai Mehta, whose support and guidance has always helped me in making my task lighter.

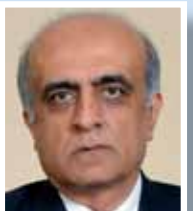
Friends, Vice President Shri Nayan Mirani has stood by me like a rock and it was due to his support and cooperation that I have succeeded in discharging my duties. I can never thank him enough for this.

I will be failing in my duty if I did not convey my thanks to the Secretariat and the entire staff of the Association.

Last but not the least, it gives me immense pleasure to thank the Press and media for being so very supportive to us and providing timely coverage to all our activities.

Thank you.

CAI extends a warm welcome to the office bearers for the year 2016-17



Shri Nayan C. Mirani
President

Shri Udayan B. Thakkar
Vice-President

CAI is grateful for the outstanding contribution of the outgoing President

Shri Dhiren N. Sheth
Immediate Past President

New Directions in Cotton Research

(Contd. from Issue No. 38)

Ibrokhim Y. Abdurakhmonov
ICAC Researcher of the Year 2013
Director, Center of Genomics and Bioinformatics,
Academy of Sciences of Uzbekistan,
Tashkent 111215, Uzbekistan

Focus On - Some New Directions and Priority Tasks for Worldwide Cotton Genetics, Breeding, Genomics and Biotechnology Research

Cotton (Gossypium spp.) is the most important natural fiber as well as an important byproduct (including feed and food) producing crop worldwide, grown in more than 80 countries to fulfill the needs of humanity. According to the ICAC, world cotton area is forecast to be 31.1 million hectares, with a total production of 22.5 million metric tons in 2015/16. World cotton consumption has been fluctuating; it reached its peak in 2007 (27 million tons) and has been declining since 2011 (~23 million tons), and now measures 24.3 million tons in 2014/15. Cotton production forecasts call for a continued decrease, with an almost 9% decline (to 23.8 million tons) in 2015/16 compared to 26.3 million tons in 2014/15.

This prompts the world cotton research and production community to substantially increase the average world yield, with subsequent stabilization and sustained cotton production. There is a huge need for solving issues associated with improvements of fiber quality without affecting yields and other key agronomic traits, tolerance to existing and emerging abiotic and biotic stresses, feed and food product qualities and staying competitive with manmade fibers while being nonhazardous to the environment.

To address these challenges and limitations, the cotton research community has made extensive research efforts and formed large-scale collaborative projects on the development of cotton genomics and genetic resources, characterization of germplasm resources, genetic mapping of key agronomic traits, development and application of modern "omics" technologies for cotton improvement. The global cotton research groups have completed the sequencing of whole genomes of two ancestor-like diploid D cottons as well as two cultivated allotetraploid G. hirsutum and G. barbadense cotton genotypes. These efforts have expanded our understanding of cotton genomes and genetic signatures behind the key cotton traits, so that subsequent usage may result in great achievements in cotton improvement programs. These seminal achievements, however, generated many needs, new directions, priority tasks, and grand challenges to be faced by cotton research community, some of which I will try to highlight below.

The detailed inventory of World Cotton Germplasm Resources showed that there are between 53,000 and 63,946 cotton germplasm accessions preserved in all cotton-growing countries. To better utilize cotton germplasm resources worldwide, there is an urgent need for: use of molecular markers with shifting from SSR-based characterization toward SNP-based analyses and genotyping by sequencing methods; wider application of association mapping, including nested-association mapping (NAM) and genome-wide association mapping (GWAS) methods, to facilitate reliable marker-assisted and genomic selection approaches; and evaluation of core sets of worldwide cotton germplasm from each country using DNA technologies for molecular diversity assessment. Such detailed analyses of existing international germplasm resources is the key, and exchanges of "only" useful and "needed" accessions may be effectively utilized in solving the key issues of a recipient country.

Consequently, the above-mentioned tasks require the development of high-throughput phenotyping platforms (cotton "phenomics") to make effective and detail phenotypic evaluations in a large number and over a short period, which is an immense challenge in all plant sciences, including cotton. There is a need for 'reference' regional germplasm evaluation nurseries worldwide where cotton research community could phenotypically evaluate their sets of germplasm accessions and priority breeding/mapping populations across globally different environmental conditions. This would help to map biologically meaningful marker-trait associations taking into account very diverse environmental impacts accelerating genetic improvement programs. Furthermore, these efforts would help to better utilization of existing genetic diversity to bread superior quality cotton cultivars. Most importantly, application of modern genomics tools and a large number of high-throughput SNP based DNA markers and new generation, high-throughput genotyping/phenotyping platforms would make the "breeding by design" and "virtual breeding" approaches possible for efficient cotton improvement.

With the availability of genome sequences and a large number of SNP marker collections, there is a need for the analysis of copy number variations (CNVs) in cotton genomes/genotypic accessions,

and to link them to the key traits. Cotton mapping studies/groups should also think about using molecular phenotyping (i.e., using molecular process such as protein–RNA interactions, translation rates, etc.) in QTL mapping that would help to precisely link the sequence variation(s) to its phenotype(s). Genetical genomics approaches (i.e., use of expression QTLs) must be extensively applied in cotton research.

Although, as mentioned above, tremendous achievements have been made in the past 2 to 3 years toward sequencing key cotton genomes, more priority tasks lie ahead of us in this direction. A need exists to: 1) improve the sequence length that would solve the many incorrect sequence sites and genome assembly challenges which cotton genomics currently faces; 2) physically match all reference molecular genetic maps of cotton with sequenced reference genomes; 3) sequence the remaining cotton genomes utilizing better methods and the third generation sequencing platforms; and 4) initiate largely coordinated multiple species (e.g., the "1KP" project) and intragenomic accession (e.g.,"1001 Arabidopsis accession sequencing") sequencing efforts (including exome, transcriptome and whole genome) in the next phase of sequencing cotton genomes. In particular, for example, sequencing of "1002 Upland cotton accessions" would be most exciting and useful project for the cotton research community, which would generate more genomics resources and tools for cotton improvement programs. The extension of such intraspecies accession re-sequencing projects for ELS and other allotetraploid and their progenitor genomes should be a long-term target of future cotton research.

The completion of above highlighted tasks would also result in effective use of all variations existing among cotton germplasm resources and its ecotypic populations, design efficient GWAS analysis and consequent genomic selections as well as tools/software programs for better analyzing cotton genomes and improving genome assembly issues. Exploring a polyploidy crop, future cotton research benefits more from the sequencing of many polyploids, and their subgenomes that would increase our understanding the complexity of polypoidy, gene silencing, epigenetics, and biased retention and expression of genes after polyploidization. It also would help to discover all natural variations and lost genes during crop domestication that should be useful for restoring key agriculturally important traits, as well as for cotton evolutionary, speciation and taxonomy studies in the future.

Addressing and completion of above-mentioned large cotton genome/species/germplasm accession sequencing tasks demand the development of better bioinformatics tools for handling, organizing, systematizing and visualizing of "Big Data" generated from cotton genomes. A future post-genomics task of the cotton research community would be to link the sequence variation(s) with phenotype(s), trait expression, and epigenetic and adaptive features of cottons to their growing environment and extreme conditions. This would make sequenced cotton genomes "functional" and biologically meaningful. To address these tasks, the cotton research community must institute combined approaches to develop bioinformatics, proteomics, metabolomics, phenomics, genomic selections, genetical genomics, reverse genomics, system biology, etc. This requires a special attention and funding of cotton bioinformatics direction.

There is a task for development and translation of the yet unexplored concept of "personalized agriculture" to cotton breeding and farming, requiring extended efforts on development of inexpensive high-throughput multi-accession/ species genome sequencing and plant phenotyping platforms and efforts (as mentioned above), plant proteome and metabolme profiling tools and instrumentation by utilizing small amount single-cell derived samples. Development of chemical genomics for cotton would be an important new direction for the future, helping to provide a way for "personalized" agriculture for sustaining cotton production worldwide.

On the cotton biotechnology side, there is a huge need to have concentrated efforts on timely application of novel transgenomics (e.g., RNAi) and genome editing tools (GEENs such as ZFNs, ODMs, TALENs, CRISPR, etc.) for cotton, and to utilize complex effects of cotton developmental genes to simultaneously improve key traits and overcome negative trait correlations. There is a need to accelerate novel "biotech cotton varieties" using these novel technologies, extending the field trials and on-time commercialization of RNAi or genome-edited organisms (GEOs)/cultivars. These are currently present in a very limited state in cotton. The greatest attention, however, must be paid to proper regulatory policies, by providing understanding and removing confusion of regulatory agencies and stakeholders; otherwise, cotton production may not readily benefit from these efforts.

All of the highlighted new directions and tasks ahead of the cotton research community require the preparation of well-qualified next generation genomics, bioinformatics, and molecular breeding scientists with the capability to utilize modern computing and instrumentation platforms and genomics/bioinformatics knowledge, areas in which cotton research suffers from significant limitations currently. This requires urgent awareness, attention, and investment.

(To be Continued …….)

Source : The ICAC Recorder, Vol. XXXIV No.1, March 2016

COTAAP Corner

Events in December 2016

Visit Of African Delegation

Although advance agriculture practices and technologies are developed at research centers and agricultural universities, it is their proper implementation in rural areas that poses a major challenge. Proper benchmark surveys, discussions of progressive farmers with scientists and extension experts, front line demonstrations are necessary to mould the technology as per requirement of the field conditions. COTAAP has been successful because it has developed such a channel which provides linkage between the entire cotton value chain viz. producer farmers, scientists, extension specialists, ginners and spinning mills.

To know more about this CAI-COTAAP extension model, an African delegation visited COTAAP Chopda Unit on Dec 10th, 2016. The delegation included following members: Mr. Marco Mtunga, Executive Director, Tanzania Cotton Board; Ms. Jolly Sabune, Executive Director, Development Board, Uganda; Mr. Boaz Ogola, Secretary, Tanzanian Ginner Association; Mr. Adam Bwambale, Cooperative Union, Uganda and Mr. Joseph Nkole, National Coordinator, Cotton Association, Zambia.

During the visit, COTAAP trustee, Mr. Pradeepbhai Gujarathi showed them the different activities of COTAAP and the unique methods adopted for extension followed by discussion of the team with farmer coordination committee members.

The delegates visited the demonstration plot of 'Cotton production with Bamboo Staking'. Here they saw first-hand the plot where advance technology was adopted as well as the check plot where traditional practices were followed. This facilitated the comparative study for judging the success of different practices demonstrated. For the purpose of testing and preparation of proper package for demonstration, this new technology has been demonstrated on limited fields of progressive farmers. It provides valuable experience for shaping activities in the coming years. Bamboo staking is

The African delegation : L.R. Mr. Adam Bwambale, Ms. Jolly Sabune, Mr. Marco Mtunga, Mr. Joseph Nkole, Mr. Pradeep Gujarathi and Mr. Boaz Ogola.

Coordination committee members and progressive farmers participate in discussion with the African delegation.

Mr. Pradeep Gujarathi with the African delegation

Informal discussion with the African delegation.

one such practice which has the potential to increase productivity up to 25 %. Maximum exposure of the foliage to sunlight increases food production while proper ventilation avoids attack of diseases and pest. The delegates also visited the vermi-compost and vermi-wash production unit.

The delegation realised the impact of technology demonstrated and adoption in terms of qualitative as well as quantitative improvement in cotton production. They also observed its socio-economic impact on the livelihood of the farmers who participated in these projects. The use of bio-fertilizers, bio-pesticides, micro nutrients and many other such critical inputs successfully decreased cost of production with sustainable increase in yield.

Crop Report:

At present, the cotton crop is at the last harvesting stage in Chopda area. Most of the farmers have uprooted cotton and sown rabi season crops. In case of irrigated cotton, 50% farmers have kept the crop for further flush. COTAAP team is visiting fields and advising farmers regarding crop rotation practices.

Cotton Yarn Production

(In Mn. kg)

Month	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16 (P)	2016-17 (P)
April	242.26	244.50	273.77	268.06	268.2	316.61	328.68	349.38	333.84
May	257.51	247.76	283.69	255.56	286.19	314.97	332.92	348.14	360.30
June	253.65	248.76	284.79	248.29	288.40	317.69	330.69	346.72	352.87
July	250.28	257.65	302.16	256.73	301.34	332.12	340.00	356.36	343.51
August	242.32	256.19	300.34	262.74	302.85	336.30	338.09	354.67	335.42
September	233.56	252.78	297.68	258.97	296.74	326.09	334.03	338.53	329.63
October	225.51	250.82	301.55	241.83	302.65	328.79	323.53	342.12	
November	235.07	257.44	283.52	243.85	282.88	312.13	335.66	320.06	
December	251.88	267.44	308.78	269.82	314.21	341.67	353.96	353.31	
January	236.70	266.69	296.87	279.19	315.07	340.38	349.82	343.98	
February	224.98	256.58	272.99	269.01	302.59	321.31	330.35	336.55	
March	242.44	272.37	283.63	272.29	321.57	340.20	356.78	347.84	
TOTAL	**2896.16**	**3078.98**	**3489.78**	**3126.34**	**3582.68**	**3928.27**	**4054.51**	**4137.64**	**2055.57**

(P) = Provisional

Source: Office of the Textile Commissioner

UPCOUNTRY SPOT RATES

(₹\Quintal)

December 2016

2016-17 Crop

Growth	P/H/R	P/H/R	GUJ	KAR	M/M	P/H/R	M/M/A	M/M/A	P/H/R	M/M/A	M/M/A	P/H/R	M/M/A	GUJ	M/M/A/K	GUJ	M/M/A/K	M/M/A/K/T/O	A/K/T/O	M(P)/K/T
G. Standard	ICS-101	ICS-201	ICS-102	ICS-103	ICS-104	ICS-202	ICS-105	ICS-105	ICS-105	ICS-105	ICS-105	ICS-105	ICS-105	ICS-105	ICS-105	ICS-105	ICS-105	ICS-105	ICS-106	ICS-107
Grade	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine
Staple	22 mm	22 mm	22 mm	23 mm	24 mm	26 mm	26 mm	26 mm	27 mm	27 mm	27 mm	28 mm	28 mm	28 mm	29 mm	29 mm	30 mm	31 mm	32 mm	34 mm
Micronaire	5.0-7.0	5.0-7.0	4.0-6.0	4.0-5.5	4.0-5.5	3.5-4.9	3.0-3.4	3.5-4.9	3.5-4.9	3.0-3.4	3.5-4.9	3.5-4.9	3.5-4.9	3.5-4.9	3.5-4.9	3.5-4.9	3.5-4.9	3.5-4.9	3.5-4.9	3.0-3.8
Strength/GPT	15	15	20	21	23	26	25	25	26	26	26	27	27	27	28	28	29	30	31	33
1	7620	7902	7592	9223	10404	10798	10264	10404	10967	10376	10629	11023	10826	10882	10911	10995	11051	11192	11417	15325
2	7620	7902	7592	9223	10404	10798	10264	10432	10967	10376	10657	11023	10854	10911	10967	11023	11079	11220	11445	15325
3	7677	7958	7592	9223	10404	10854	10264	10432	11023	10376	10657	11079	10854	10911	10967	11023	11079	11220	11445	15325
5	7677	7958	7592	9223	10404	10826	10264	10432	10995	10376	10657	11051	10854	10911	10967	11023	11079	11220	11445	15325
6	7677	7902	7649	9223	10404	10770	10208	10404	10939	10320	10629	11023	10826	10882	10939	10995	11051	11192	11445	15325
7	7592	7845	7705	9223	10404	10686	10123	10320	10854	10236	10545	10939	10742	10826	10854	10939	10967	11107	11389	15325
8	7508	7761	7789	9223	10404	10686	10067	10264	10854	10179	10489	10939	10686	10770	10798	10882	10911	11051	11332	15325
9	7367	7620	7789	9223	10404	10686	10067	10264	10854	10179	10489	10939	10686	10770	10798	10882	10911	11051	11332	15325
10	7227	7508	7789	9223	10404	10657	10067	10264	10826	10179	10489	10911	10686	10770	10798	10882	10911	11051	11332	15325
12	7311	7592	7789	9223	10404	10629	10067	10264	10798	10179	10489	10882	10686	10770	10798	10882	10911	11051	11332	15325
13	7367	7649	7789	9223	10404	10714	10095	10292	10882	10208	10517	10939	10714	10798	10826	10911	10939	11079	11360	15325
14	7367	7649	7789	9223	10404	10854	10151	10348	11023	10264	10573	11079	10770	10882	10882	10995	10995	11135	11417	15325
15	7508	7789	7789	9223	10404	10798	10095	10292	10967	10208	10517	11023	10714	10770	10826	10939	10939	11051	11332	15325
16	7508	7789	7789	9223	10404	10798	10095	10292	10967	10208	10517	11023	10714	10770	10826	10939	10939	11051	11332	15325
17	7508	7789	7789	9223	10404	10742	10095	10292	10911	10208	10517	10967	10714	10770	10826	10939	10939	11051	11332	15325
19	7452	7733	7845	9223	10404	10686	10067	10264	10854	10179	10489	10911	10686	10742	10798	10911	10911	11023	11304	15325
20	7452	7677	7930	9223	10404	10601	10067	10264	10770	10179	10489	10854	10629	10742	10742	10854	10882	11023	11304	15185
21	7452	7677	8070	9251	10432	10601	10067	10264	10798	10179	10517	10854	10657	10770	10770	10882	10911	11051	11304	15185
22	7508	7733	8155	9251	10432	10742	10095	10320	10911	10208	10573	11023	10742	10826	10826	10939	10967	11107	11332	15185
23	7649	7874	8183	9251	10432	10770	10095	10348	10939	10208	10601	11051	10770	10854	10854	10967	10995	11135	11332	15185
24	7705	7930	8183	9251	10432	10798	10095	10348	10967	10208	10601	11079	10770	10854	10854	10967	10995	11135	11332	15185
26	7845	8070	8211	9280	10461	10854	10151	10404	11023	10264	10657	11135	10826	10911	10911	11023	11051	11220	11417	15185
27	7986	8211	8211	9280	10461	10854	10151	10404	11023	10264	10657	11135	10826	10911	10911	11023	11051	11220	11417	15185
28	8239	8464	8295	9336	10517	10939	10208	10461	11107	10320	10714	11220	10854	10967	10939	11051	11079	11248	11445	15044
29	8267	8492	8295	9336	10517	10967	10264	10489	11135	10376	10714	11248	10854	10967	10939	11051	11079	11248	11445	15044
30	8408	8633	8295	9336	10517	10995	10292	10517	11164	10404	10742	11276	10882	11023	10967	11107	11107	11276	11501	15044
31	8408	8633	8323	9364	10545	11051	10292	10545	11220	10404	10770	11332	10911	11051	10995	11135	11135	11304	11529	15044
H	**8408**	**8633**	**8323**	**9364**	**10545**	**11051**	**10292**	**10545**	**11220**	**10404**	**10770**	**11332**	**10911**	**11051**	**10995**	**11135**	**11135**	**11304**	**11529**	**15325**
L	**7227**	**7508**	**7592**	**9223**	**10404**	**10601**	**10067**	**10264**	**10770**	**10179**	**10489**	**10854**	**10629**	**10742**	**10742**	**10854**	**10882**	**11023**	**11304**	**15044**
A	**7663**	**7916**	**7919**	**9249**	**10430**	**10783**	**10149**	**10356**	**10953**	**10262**	**10589**	**11035**	**10768**	**10852**	**10870**	**10969**	**10995**	**11137**	**11383**	**15247**

H = Highest L = Lowest A = Average

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UPCOUNTRY SPOT RATES

(Rs./Qtl)

Sr. No.	Growth	Grade Standard	Grade	Staple	Micronaire	Strength /GPT	Spot Rate (Upcountry) 2016-17 Crop DECEMBER 2016					
	Standard Descriptions with Basic Grade & Staple in Millimetres based on Upper Half Mean Length [By law 66 (A) (a) (4)]						26th	27th	28th	29th	30th	31st
1	P/H/R	ICS-101	Fine	Below 22mm	5.0-7.0	15	7845 (27900)	7986 (28400)	8239 (29300)	8267 (29400)	8408 (29900)	8408 (29900)
2	P/H/R	ICS-201	Fine	Below 22mm	5.0-7.0	15	8070 (28700)	8211 (29200)	8464 (30100)	8492 (30200)	8633 (30700)	8633 (30700)
3	GUJ	ICS-102	Fine	22mm	4.0-6.0	20	8211 (29200)	8211 (29200)	8295 (29500)	8295 (29500)	8295 (29500)	8323 (29600)
4	KAR	ICS-103	Fine	23mm	4.0-5.5	21	9280 (33000)	9280 (33000)	9336 (33200)	9336 (33200)	9336 (33200)	9364 (33300)
5	M/M	ICS-104	Fine	24mm	4.0-5.0	23	10461 (37200)	10461 (37200)	10517 (37400)	10517 (37400)	10517 (37400)	10545 (37500)
6	P/H/R	ICS-202	Fine	26mm	3.5-4.9	26	10854 (38600)	10854 (38600)	10939 (38900)	10967 (39000)	10995 (39100)	11051 (39300)
7	M/M/A	ICS-105	Fine	26mm	3.0-3.4	25	10151 (36100)	10151 (36100)	10208 (36300)	10264 (36500)	10292 (36600)	10292 (36600)
8	M/M/A	ICS-105	Fine	26mm	3.5-4.9	25	10404 (37000)	10404 (37000)	10461 (37200)	10489 (37300)	10517 (37400)	10545 (37500)
9	P/H/R	ICS-105	Fine	27mm	3.5.4.9	26	11023 (39200)	11023 (39200)	11107 (39500)	11135 (39600)	11164 (39700)	11220 (39900)
10	M/M/A	ICS-105	Fine	27mm	3.0-3.4	26	10264 (36500)	10264 (36500)	10320 (36700)	10376 (36900)	10404 (37000)	10404 (37000)
11	M/M/A	ICS-105	Fine	27mm	3.5-4.9	26	10657 (37900)	10657 (37900)	10714 (38100)	10714 (38100)	10742 (38200)	10770 (38300)
12	P/H/R	ICS-105	Fine	28mm	3.5-4.9	27	11135 (39600)	11135 (39600)	11220 (39900)	11248 (40000)	11276 (40100)	11332 (40300)
13	M/M/A	ICS-105	Fine	28mm	3.5-4.9	27	10826 (38500)	10826 (38500)	10854 (38600)	10854 (38600)	10882 (38700)	10911 (38800)
14	GUJ	ICS-105	Fine	28mm	3.5-4.9	27	10911 (38800)	10911 (38800)	10967 (39000)	10967 (39000)	11023 (39200)	11051 (39300)
15	M/M/A/K	ICS-105	Fine	29mm	3.5-4.9	28	10911 (38800)	10911 (38800)	10939 (38900)	10939 (38900)	10967 (39000)	10995 (39100)
16	GUJ	ICS-105	Fine	29mm	3.5-4.9	28	11023 (39200)	11023 (39200)	11051 (39300)	11051 (39300)	11107 (39500)	11135 (39600)
17	M/M/A/K	ICS-105	Fine	30mm	3.5-4.9	29	11051 (39300)	11051 (39300)	11079 (39400)	11079 (39400)	11107 (39500)	11135 (39600)
18	M/M/A/K/T/O	ICS-105	Fine	31mm	3.5-4.9	30	11220 (39900)	11220 (39900)	11248 (40000)	11248 (40000)	11276 (40100)	11304 (40200)
19	A/K/T/O	ICS-106	Fine	32mm	3.5-4.9	31	11417 (40600)	11417 (40600)	11445 (40700)	11445 (40700)	11501 (40900)	11529 (41000)
20	M(P)/K/T	ICS-107	Fine	34mm	3.0-3.8	33	15185 (54000)	15185 (54000)	15044 (53500)	15044 (53500)	15044 (53500)	15044 (53500)

(Note: Figures in bracket indicate prices in Rs./Candy)