

**3<sup>rd</sup> Day**  
**"International Coir Tech Expo – 2012"**  
**On 14<sup>th</sup> August, 2012**

On the third day of the International Coir Tech Expo, a National Seminar on the subject, **"Sustainable Development through New**



**Technologies"** was organised..

Prof. G. Balachandran, Chairman, Coir Board welcomed the gathering. The Seminar was inaugurated by Dr. Christy Fernandez, IAS (Retd). In his inaugural speech, Dr. Fernandez said that coir industry should

make the Information Technology an integral part of its research and development efforts. He opined that there are a number of avenues in which the Coconut Development Board and Coir Board could join hands and reap the benefits both for the coir industry and coconut farmers. He further said that the products of the industry should be consumer oriented and need based.

In the Seminar, there were 9 presentations made by speakers from the following organisations :

1. Indian Institute of Packaging, Mumbai
2. National Research Development Corporation, New Delhi
3. International Small and Medium Enterprises , Chennai.
4. Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram
5. Bhabha Atomic Research Centre, Mumbai
6. Rubberized Coir Manufacturers Association, Kanyakumari

7. Natura Fibre Industries, Bangalore
8. National Institute of Design , Ahmedabad
9. Banaras Hindu University, Varanasi



The first presentation in the technical session was by Dr.N.C. Saha, Director, Indian Institute of Packaging, Mumbai. He gave a detailed description about the training & education, testing & certification of packaging materials & packages that the

Institute provides. They also give technical consultancy through advisory study visits and Package design & development. He also mentioned about the National & international exhibitions held and the "India Star Award" IIP was conferred. He said that World Packaging Industry is one of the world's largest & diverse manufacturing sectors. According to him , paper is the major packaging material globally (36%) followed by plastic (34%), but in India plastic is in first position followed by paper. In India there are 22,000 package industries. Even



though all are concerned about eco friendliness and about the depletion of ozone layer, plastic plays an important role in the packaging industry. He

also said this a positive effect of high population in the packaging industry. As a result of the high population in India, none of the packaging industries in the country are affected by the global recession and in fact the packaging industry in our country is growing continuously. The total worth of the packaging industry in India is Rs.700 billion or USD 14 billion with an average growth rate @ 15% and is expected to grow further. The total turnover is expected to reach Rs.725 billion or USD 14.5 billion by 2015. India still holds the 13<sup>th</sup> position in the global packaging industry. The current trends in the Indian packaging industry include :

- Change in consumer attitude
- The decision making segment of 15-44 year growing.
- Growth of literacy means a changing consumer profile and emphasis.
- A large middle class with relatively bigger spending power.
- Growth in number of working women.
- Tomorrow's consumer – is the key factors for the future demand on packaging.

The current Indian consumer profile is changing demographics, change in life style, more nuclear families with dual income, Increase of literacy, demands on convenience, lack of time, and change in food habits and the booming of retail market. The coir or husk can easily be processed to produce sturdy material for packaging and can be considered as green packaging.

The second presentation in the technical session was by Sri. Arunabha Pradhan, NRDC, on Trends & Governance of IPR, Its Importance in the Coir Industry and Role of NRDC in Transfer of Coir Technologies, National Research Development Corporation, New Delhi, India. He said an innovation

starts as a concept that is refined and developed before application. Innovations may be inspired by reality. The innovation process, which leads to useful technology, requires research , development (up-scaling, testing), production marketing and use. He talked about NRDC's role in coir products/process commercialization, coir cluster development, helping women workers in cooperatives through propagating new technologies. He mentioned about the research and technology development in coir industry, patent applications in coir related products and processes like Pithplus, Cocolawn, coir rubber composite boards from coir fibre waste, pollution free technologies for processing of coir fibre for the spinning sector and bioextraction of natural fibre. Then he concluded by giving a brief introduction about NRDC, its vision and mission, its core strength, IP management and technology commercialization.

The next presentation in the technical session was by Prof.V.Padmanand, International SME expert on the topic "Growth of decentralised coir industry through consortium approach". He said that there are 4 types of consortia viz. Raw material bank, Marketing - domestic and international , Commercial and Common facility. Consortium approach was first experimented by the UNDP in India. Coir Board also tried and developed a model in the export oriented production centres in Alleppey district by organizing consortia of small producers. The SIDBI funded the project under a Mutual Credit Guarantee Scheme. The consortia were able to source raw material in bulk from Pollachi. He said that more capital investment through various schemes under Govt. of India has to be attracted in coir sector. The IIUS cluster at Alleppey could be replicated in other States, Shri. Padmanand added

The next presentation in the technical session was by Dr. P.P.Chandrachoodan, Advisor (R&D and Total Knowledge Management), (Former Chief R&D Program Officer, BRNS,DAE, Govt.Of India on " A Glimpse into A Larger Development Strategy for Exploiting the Potentials for New Technologies and Applications Using Coconut Fibre, Pith, etc - Scope for Planned R&D and Developments of Industrial Products and Processes ".He said that R & D should be focused on end use. He said not to see coir as coir but as a raw material with high end use. His presentation focused on this Successful Development Strategy, based on these Essential Ingredients of Impact Making R&D, which has been extensively practiced to give birth to many Impact-Making and End-Use Integrated Tangible Developments . The Scope for Technology Developments based on Coconut, Fiber and many useful parts of the *Kalpa Vruksha* need be lifted up through Large Scale Diversified R&D and Lateral Integration of Technologies to achieve the right levels of economic exploitation.

The next presentation in the technical session was by S.Sundaresan, Former member ,Coir Board and president on "Rubberised coir industry". He said that the birth of Rubberised Coir industry is quite amusing and interesting. He also describes the important use of rubberized coir in the global market. He also illustrated the use of rubberized coir as means of stabilising sea shore canals and river banks in some westerns countries Netherlands, Germany etc. there exists a very large and diverse market for bedding and upholstery in Europe.

The next presentation in the technical session was by Dr.Sabu Thomas, Scientist ,Division of Molecular Microbiology ,Rajiv Gandhi Center for Biotechnology. He said Biotechnology is a technique that uses living organisms or its substances to make or modify a product, to improve plants or animals, or to develop microorganisms for specific uses in industries. He

told that Manipulation of genes is called genetic engineering or recombinant DNA technology. The term GMO means Genetically Modified Organisms. He gave a detailed description about the Applications of Biotechnology in Agricultural, Medical, health care, Industrial and environmental. He described the present status of RGCB –CCRI collaborative project on “Genetic Manipulation Of “Coirret” For Application On Coir For Quality Improvement”. He further added that Coir fiber with improved softness and appropriate tensile strength can be used in textile industry and other sectors without causing much pollution to the environment.

Shri.Vijai Singh Katiyar ,National Institute of Design (NID) spoke on “Design for a paradigm shift exploring coir and its blends for finer yarns”. He said that with innovation in stages of coir fibre extraction and its hand spinning, it became possible to develop coir yarns that are considerably fine and that too without any core or support yarns. Blending coir fibre with locally available natural fibres by resolving issues in fibre compatibility to further enhance the range of new yarns. The yarn use locally available skills and are superior in aesthetic and qualitative terms. He concluded his talk by telling that the industry must concentrate on establishing the logical interconnections for developing new innovative products with a larger scenario analysis approach rather than just a buyer centric method.

The next presentation was by Mr. Abishek Mathew,Director,M/s Naturaflex on “COIR COMPOSITES FOR FURNITURE AND PANEL MARKET”. He described about the marketing strategies for coir composites and gave details about their products. He said that the coir composites are future products an ideal substitute for wood. There should be some concerted efforts from Coir Board, Govt. of India and the state govts to push the product in the market.

The next presentation was by JOSE AUGUSTINE, Member Coir Board – A TECHNOLOGY INVENTION ON THE THRESHOLD OF REVOLUTIONALISING RUBBERISED COIR PRODUCTION” . He talked about his recent invention, namely “RC-2011”, which is the state of the art technology solution of producing rubberized coir by using straight coir fibre (instead of the conventional curled or twisted coir) and consuming rubber latex just about 10% of weight of coir instead of the normal 25%, has begun to set revolutionary trends in rubberized coir production. He concluded his talk by describing about the salient features of RC-2011 , conventional technology issues and commercial advantages of RC-2011

Shri.Sajith Gopinath, Faculty, Industrial Design, National Institute of Design (NID), Ahmedabad spoke on “ Design meets the designers: Moving towards a co-created world” .He described about the Evolution of Design. The objective of his presentation was to create a new guild of craftspersons without the class distinction which often came up as a barrier between craftspersons and artists. He described the Evolution of Design in India - Nehruvian vision for creating a self-sufficient India through industrial production and development, focusing on Small and Medium Enterprises (SME).He concluded his talk by telling that opportunities provides great scope in coir innovation for social and sustainable development of communities.

The last presentation in the technical session was by Prof.Nira Misra, School of Biomedical Engineering Indian Institute of Technology(BHU) Varanasi on “Surface Modification of PVC in presence of Phase Transfer Catalyst ”.She described about the Surface modification of PVC and its characterisation”. She described that Nucleophilic substitution of Plasticized



PVC films offers an opportunity to restrict leaching out of iPlasticizer. As this process prevents leaching out of the plasticizer significantly it can be used as plasticized PVC .

Afternoon

### **Coir Investors' Meet**



In the evening of 14<sup>th</sup> August, 2012, there were two consecutive sessions viz. Coir Investors' Meet and Business Plan competitions. The Coir Investors' Meet was organized by Coir Board for the benefit of the entrepreneurs/workers who

have evinced interest in the technologies developed by the CCRI and CICT. The meet was presided over by Prof. G. Balachandran, Chairman, Coir Board in which Prof. V.N. Rajasekharan Pillai, Executive Vice President, S&T Department, Govt. of Kerala was the Chief Guest. Dr. Pillai said that investment in any industry should be made after due process of evaluation and planning. Before taking up coir as an avocation, the entrepreneurs have to





get adequate knowhow of the technology and also machinery employed for better results and successful running of the project. Shri. Rajan George, Honorary Secretary, Kerala Management Association, Shri. M. Kumara Raja, Secretary, Coir Board and Shri. P.C. Antonel Vaz, Joint Director (Plg.) also spoke on the occasion. Mrs. Anita Jacob proposed vote of thanks. 850 prospective entrepreneurs participated in the discussions.

### **Business Plan Competition**



In order to create awareness on the business opportunities offered by the Coir Industry among young prospective entrepreneurs, the Board in association with Club FM 94.3 organised a business

plan competition named as "Coir, the Money Spinner" for the students of reputed business schools in Kerala. In the competition, 10 teams from different parts of the state participated. The business plan proposals included manufacture of packaging materials, building blocks, textile materials etc. The short listed plans were presented by the selected students in the session. The presentations were adjudged by an eminent panel of management experts and the first prize for the competition was awarded to the team from Cochin University of Science and Technology (CUSAT).

In the evening a light music was arranged as part of cultural programme.