

Our Activities

- An Association with over 600 members from India and abroad working since last 68 years for the growth and development of Leather and its allied industries.
- Organize seminars, symposiums, workshops in order to share information, knowledge & latest development and interactions for the benefit of all concerned.
 - Organize Human Resource Development programmes on regular basis.
 - Publish for over 60 years, a technical monthly journal namely "Journal of Indian Leather Technologists' Association" (JILTA), widely circulated through out the World
 - Publish books for the benefit of the students at various levels of study, for the Research Scholar and the Industry.
 - Work as interface between Industry and the Government.
- Assist Planning Commission, various Government Institutions, Ministry and autonomous bodies to formulate appropriate policies for the growth of the Industry.
- Assist small and tiny leather goods manufacturers in marketing their products by organizing LEXPOs in Kolkata and different parts of India.

Indian Leather Technologists' Association

[A Member Society of International Union of Leather Technologists' and Chemists Societies (IULTCS)]

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JOURNAL OF INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION (JILTA)

Indian Leather Technologists' Association is a premier organisation of its kind in India was established in 1950 by Late Prof. B.M.Das. It is a Member Society of International Union of Leather Technologists & Chemists Societies (IULTCS).

The Journal of Indian Leather Technologists' Association (JILTA) is a monthly publication which encapsulates latest state of the art in processing technology of leather and its products, commerce and economics, research & development, news & views of the industry etc. It reaches to the Leather / Footwear Technologists and the decision makers all over the country and overseas.

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(Member Society of International Union of Leather Technologists and Chemists Societies)

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INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION (ILTA)

(Member Society of International Union of Leather Technologists and Chemists Societies)

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CN30



The Australian red meat and livestock industry has set the ambitious target to be Carbon Neutral by 2030 (CN30). This target means that by 2030, Australian beef, lamb and goat production, including lot feeding and meat processing, will make no net / significant release of greenhouse gas (GHG) emissions into the atmosphere. With a commitment from all of industry, settings of the right policy and ongoing investment on research, the Australian red meat industry can be at the forefront of carbon neutrality.

Meat & Livestock industry has created a simple explanation that explains the difference in the environmental impact of methane from cows and carbon dioxide from fossil fuels. Methane is part of the natural carbon cycle that breaks down into natural CO_2 and water after 12 years. Grass absorbs the CO_2 by photosynthesis and the cycle starts again. CO_2 from fossil fuels is non-remediable and does not emerge from this natural carbon cycle, so remains in the atmosphere for 1,000 years potentially. The difference between methane from livestock and CO_2 from fossil fuels is widely misunderstood and misreported.

The CN30 target sends a clear signal to world and consumers that the red meat and livestock industry is addressing emissions proactively and taking action to improve long-term productivity while striving to deliver zero net emissions. Staying ahead of current and future consumer, customer and community expectations regarding environmental credentials allows red meat producers to stamp their eco – benign mark in a competitive global protein market. The industry has demonstrated commitment to environmental stewardship, through initiatives such as CN30, enabling ongoing trust and support for the red meat and livestock industry. It underpins Australia's position as a responsible producer of high value, clean, safe and natural protein.

The approach towards achieving CN30 is focused on delivering multiple benefits to industry, consumers and the community.

Benefits for producers

- Benefits for the consumer
- Benefits for the community

Carbon neutrality does not need to come at the cost of livestock numbers. Analysis by CSIRO shows it is possible that achievement of CN30 without reducing numbers of herd and flock below the rolling average of 10 year (25 million cattle, 70 million sheep and 0.5 million goats). By 2030, producers will be even more attuned to the influence of genetic, environmental, technological and market factors on red meat production, and will be able to:

- Access the best information, enabling selection of livestock with multiple attributes to increase productivity and reduce methane emissions per kilogram produced
- Select supplements, pastures, legumes and trees with multiple attributes, enabling livestock to thrive in more extreme weather and climate conditions
- Access more established markets for low and zero carbon red meat and co-products

The red meat and livestock industry currently contributes 10% of all of Australia's GHG emissions – this figure has halved since 2005. Greenhouse gas emissions from the red meat and livestock industry have fallen by 56.7% since 2005. In addition to emissions, it now takes 65% less water to produce a kilo of beef.

Our do-able :

- Arm ourselves with the right knowledge. Identify our sources
 of emission, know what carbon storage options are available
 and document these go to our carbon account.
- Consider herd or flock management practices to improve livestock diet, breeding efficiency or structure to reduce





methane emissions per kilogram of live weight produced. Download the beef cattle herd management factsheet or read the full research report.

- Consider energy efficiency or renewable energy technologies to reduce fossil fuel use which result in carbon dioxide emissions. Find out more about how to weigh up the most energy-efficient options for your business.
- Identify shade and shelter options in our property. Integrate
 trees and shrubs to grazing systems for improved carbon
 storage and animal health and biodiversity benefits. Our local
 land care group can help us choose the right tree and
 species of vegetation for our region.
- Consider the potential for savanna fire management methods to avoid emissions and improve carbon storage.
- Monitor and record active dung beetle populations in our herd or flock and keep an eye out for new species as they are released.

Action for shorter term

- Plan for delivery and distribution of new feeds and supplements which reduce methane emissions from livestock and improve animal growth rates. This will enable more red meat to be produced for the same or reduced methane emissions.
- Establish deep rooted, palatable pastures and legumes to improve soil carbon levels and lift animal productivity.

Action for longer term

- Consider what mix of pastures, legumes and trees is suitable to maintain livestock productivity in future weather and climate scenarios.
- Look at collaborative supply chain arrangements to mitigate financial, environmental and market risks as well as the impact on business inputs and output.

CSIRO has presented science directed pathways for the Australian red meat industry to achieve CN30 (Mayberry et al., 2018). With commitment of industry, settings of the right policy and new investment in research, development and adoption, CN30 is achievable globally too. Australian red meat businesses are among the most innovative in the world. A range of factors, such as unique environment and markets, require businesses to continually adapt in order to thrive globally. Coupled with the fact the red meat industry is custodian of around half of Australia's land mass, an enormous and unique opportunity exists for the industry to be a large part of Australia's climate change solution.

Focused on the win win status of industry's approach to achieving the CN30 target is focused on delivering multiple benefits to stakeholders: Herd/flock management practices, genetic technologies, and novel animal feeds/supplements can both increase productivity and reduce enteric methane emissions.

- Legumes can raise animal and soil productivity and reduce enteric methane emissions
- Increases in organic carbon storage in soils improve soil health and drought resilience, and removes carbon dioxide from the atmosphere
- Appropriate integration of trees and shrubs into grazing management can improve carbon storage, animal health and welfare, and biodiversity.

Whether it is reducing net emissions, boosting productivity or developing new markets, industry's actions under the CN30 Roadmap will deliver multiple benefits aligned to stakeholder values and all the nations should jump into this arena with utmost attention and sincerity.

Gartan Mukherjee
Hony. Editor, JILTA





As an active proponent of responsible chemistry, Stahl has established the Stahl Campus® training institute in its Center of Excellence for sustainable leather technologies in Kanpur. With our Stahl Campus® Leather Modules, we can offer training and information, such as responsible chemistry and sustainability in leather production. We believe that in this way, we facilitate transparency that inevitably will lead to a better supply chain with responsible chemistry.

Our approach is modular, making it easy to tailor learning programs to specific needs. Stahl Campus" has at its core the drive to unlock human potential and make that new competitive advantage. By providing the possibility of sharing knowledge, we embrace our role in the dynamic leather and chemical industry. Stahl Campus[®] is a great opportunity to strengthen skills and capabilities in order to make working methods more efficient by sharing experiences and studying products and procedures.

If you're interested to receive more information on Stahl Campus*, please contact Prasanna Maduri (Prasanna.maduri@stahl.com).

If it can be imagined, it can be created.



campus.stahl.com





Tanners are facing growing environmental challenges as the market increasingly demands that high-quality leathers are produced more responsibly. Contributing to a more ecological leather production process, our responsible beamhouse portfolio helps tanners meet these challenges without compromising on the quality of the leather.

The Stahl BeTan* portfolio consists of a complete range of responsible solutions for every step in the beam house and tanning process, from soaking to liming and bating. Using the best-in-class responsible technologies from the Stahl BeTan* portfolio, tanners can reduce their water consumption and the amount of sulfides, solids and salt used during leather production.

Moreover, it can result in a shorter production process. Building on years of experience in beam house operations and acquiring the best technical experts in the world, Stahl has become the go-to partner when it comes to sustainable beam house and tanning solutions. Our Stahl BeTan® solutions demonstrate Stahl's continuous commitment to Responsible Chemistry, aimed at reducing the environmental impact of leather-making.

If you would like to know more about Stahl BeTan®, and what we can do for your business, visit stahl.com or contact david.sabate@stahl.com

stahl.com





10 REASONS WHY STAHL IS EMBRACING DIGITAL TRANSFORMATION



he **Digital Transformation** of our world is showing no signs of slowing down. From robotics and artificial intelligence (AI) to the Internet of Things and beyond, innovative technologies are opening up new opportunities for companies in countless markets and industries. Stahl has long been exploring these exciting developments and applying them to our work: we believe digital transformation is an essential stepping-stone for delivering necessary chemistry to all our stakeholders.

But why exactly is it so important to embrace what these new technologies have to offer? We have identified several key reasons – 10, to be precise. Let the countdown begin!

- 10. Creating a culture of change: We are fostering a company culture that actively looks for change. As part of this, our entire organization has embarked on a 10-year Digital Transformation journey. We want to challenge current systems, create a more flexible mentality, and deliver more value for stakeholders and society.
- 9. Adapting to a post-COVID-19 World: With remote and hybrid working on the rise, we need to reimagine how and where our work will be carried out. Thanks to our Unified Communications Platform, we can create more intimate collaboration both internally and externally. This means we can optimize productivity among a remote workforce, adapt our ways of working, and grow our connections and empathy.
- 8. Lead generation and transition to CRM: Digital transformation allows us to reach new audiences and build long-lasting relationships. We can turn leads from social media into commercial opportunities using Customer Relationship Management tools. Our omnichannel marketing approach delivers a consistent brand experience and helps us gain access to new market segments.





- 7. Employee engagement: Through digital transformation, we aim to enable every Stahl employee to add their unique contribution. Our Digital Workplace combines inclusive employee communications with a mobile-first platform. Interactive communication streams allow employees to make their voices heard, so we can access talent and increase employee retention.
- 6. Accessing co-creation potential: New technologies mean new opportunities for creative thinkers to work with Stahl more easily and to achieve shared goals. We collaborate with partners via our customized Open Innovation Portal, which opens up new ways of thinking and helps teams find new markets or applications for their technologies.
- 5. Seamless stakeholder collaboration: It is important for us not only to anticipate market needs but also to create a customized user experience. Powered by Blockchain technologies, Product Information Management does both while also allowing stakeholders to participate in supply chain transparency. Users can establish a product's provenance and chain of custody and enjoy access to enriched product information.
- 4. Corporate governance: Digital solutions enable effective management that delivers long-term success for our company. By optimizing our Office 365 governance, our cybersecurity, and the creation of 'corporate memory', we can maintain our culture and trust while driving our digital maturity forward.
- **3. Improving operational environment:** Safety and efficiency are top priorities. Our investments in Al will empower our people, improve our process efficiencies, and optimize our products' reliability. We are also digitalizing our supply chain and logistics operations, breaking down data siloes in our factories, and connecting 'smart' objects to save time and reduce waste.
- 2. More efficient product development: Applying digital tools like AI can help us gain a better understanding of product formulation processes and enhance our forecasting capabilities. In turn, this will minimize our environmental impact, guarantee rigorous product stewardship, and lower our paper consumption.
- 1. Climate change: Our number-one reason for embracing the digital transformation is simple: we believe it will help reduce our dependence on non-renewable resources and deliver necessary solutions that enable sustainable living. To achieve this, we collaborate with intergovernmental panels to minimize the risks and impacts of climate change. We are committed to using new technologies to reduce our collective reliance on fossil-based chemistry, replace petrochemicals with renewable carbon, and ensure transparency and accountability.

We look forward to working with you on new, digital solutions for necessary chemistry – don't hesitateflto get in touch!

SP9III



From the desk of General Secretary



63RD ANNUAL GENERAL MEETING OF ILTA

The 63rd Annual General Meeting of ILTA was organized on 30th September, 2021 at 03.00 PM IST (Registration from 02.30 pm IST) on both physically and Zoom Cloud app to transact the following business.

- 1. To confirm the Proceedings of 62nd Annual General Meeting held on 24th December 2020.
- 2. To consider and adopt the audited Balance Sheet and Statement of Accounts for the Financial Year ending 31st March 2021.
- To consider and adopt the Annual Report of the General Secretary on behalf of the Executive Committee.
- To ratify the postponement of Election for Constituting the Office Bearers & Executive Committee of ILTA for the term 2021-2023.
- 5. To appoint the Auditor in place of M/s Ray & Ray who are retiring but are eligible for reappointment.

The Printed Annual Report & Audited Statement of Accounts for 2020-21, Notice of the 63rd AGM and Proceedings of the last i.e. 62nd AGM was posted for the members through Indian Post on 6th / 7th September' 2021 and also sent the soft copy of the same via email on 8th September, 2021 respectively. Being no question raised the items under point no. 1, 2, and 3 passed unanimously. Item under point no. 4 was ratified/confirmed as it was decided in its 540th meeting held on 16th April'2021 and item under point no. 5 was confirmed

with a note that the decision would be taken by the Executive Committee in due course.

With the Vote of thanks to the Chair the meeting winded up.

LEXPO AT KOLKATA AND SILIGURI

After a thorough review of the Covid situation and discussion with ILPA (the organizing partner) time to time, the Kolkata LEXPO – XXXXI has been planned to be organized at Kolkata Ice Skating Rink from 8th to 16th January' 2021.

A brochure and the T & C have been started to be circulated among the prospective participants.

The Siliguri LEXPO – XXVI has been proposed to be organized at Kanchanjungha Stadium adjacent Ground, Siliguri from 26th December'2021 to 10th January' 2022. Provisional allotment of the ground has been obtained. In view of the Pandemic situation further decision will be taken accordingly. We have proposed to Indian Leather Products Association (ILPA) that, if any of their members is interested to participate in the event, may contact ILTA Office at the earliest. Also approaches to the prospective participants has been started.

However, latest progress and status report regarding organizing both the proposed fairs will be informed in due course.

(Susanta Mallick)
General Secretary



YOUTUBE CHANNEL & FACEBOOK PAGE OF ILTA

An official **YouTube Channel** namely **ILTA Online** and a **Face Book Page** namely **Indian Leather Technologists' Association** has been launched for sharing the activities of our Association since November' 2020 and July' 2021 respectively.

You may find all the Lives / Video recordings of different Seminar, Symposiums & Webinars on both of these social medias along with our website **www.iltaonleather.org** time to time.

You are requested to kindly do **Like** & **Subscribe** the YouTube Channel and "**Follow**" the FaceBook Page to get regular updates on the activities of our Association.

RECEIVING HARD COPY OF JILTA EVERY MONTH

Members want to have the hard copy of JILTA every month or any particular issue, kindly inform us by email or post, whichever is convenient.

In case we do not receive any communication from you for a hard copy, we will continue sending e-copy of the same to your email id available with us. You may please verify your email id with our office at the earliest.

PUBLISH YOUR TECHNICAL ARTICLE

Faculties, Research Scholars and students of various Leather Institutes may wish to publish their Research / Project papers in an Article form in this monthly technical journal, JILTA.

Interested author may sent their paper (in MS Word format) along with a PP Photograph and Contact details like Email, Mobile etc. to our email IDs : admin@iltaonleather.org / jiltaeditor@gmail.com

Members are requested to :-

- a) Kindly inform us your 'E-Mail ID', 'Mobile No', 'Land Line No', through E-Mail ID: admin@iltaonleather.org or over Telephone Nos.: 24413429 / 3459. This will help us to communicate you directly without help of any outsiders like Postal Department / Courier etc.
- b) Kindly mention your **Membership No.** (If any) against your each and every communication, so that we can locate you easily in our record.

General Secretary and the Members of the Executive Committee are available to interact with members at 19.30 hrs, over Phone / Conference call on every Thursday





INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION

[A Member Society of International Union of Leather Technologists' and Chemists Societies] (IULTCS)]

presents

THE HERITAGE LEATHER FAIR



LEXPO-XXXXI

Exhibition cum sale on Export Quality Leather Products

at

CALCUTTA ICE SKATING RINK

Date: 8 - 16 January' 2022 Time: 11 am to 8 pm every day

in collaboration with



for details please contact

Indian Leather Technologists' Association

'Sanjoy Bhavan', 3rd Floor, 44, Shanti Pally, Kolkata- 700 107, WB, India Phone: 91-33-2441-3429 / 3459 ★ WhatsApp: +91 94325 53949 E-mail: admin@iltaonleather.org; mailtoilta@rediffmail.com Website: www.iltaonleather.org



LAYOUT PLAN

KOLKATA LEXPO - XXXXI







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This year LEXPO is going to be organized by ILTA in collaboration with ILPA at Kolkata Ice Skating Rink from 8th to 16th January' 2022.

Most of the participants will be manufacturer and exporter of genuine leather products to Europe, UK and USA for the top running brands of the World.

Therefor the exhibited products will be of highest quality made of genuine leather produced in a pollution free environment and at quite reasonable cost to clear out their surplus stock.

The visitors will get the opportunity to come across top quality leather made products sold in different corners of the World and will be able to buy at reasonably attractive price.





LEXPO A OVERVIEW

LEXPO – Leather Exposition to reach

people interested to know and buy genuine leather products.
ILTA has been organizing LEXPOs to promote and provide marketing facilities to keep pace with the latest design and technology to have better interaction with the domestic buyers of leather goods as well as providing the marketing outlet to the quality leather goods manufacturer. ILTA has been organizing this leather trade fair since 1977 in Kolkata, since 1992 at Siliguri and since 2010 at Durgapur and also in other states like Jharkhand, Orissa, Assam, Sikkim etc.

LEXPO was a total leather exposition in the National level and used to be conducted in star hotels up to year 1981 as Buyer/Seller Meet. In the year 1982, LEXPO was reoriented to reach out to the domestic market along with the export market and was shifted to the open ground of Kolkata Maidan. And thereafter in different grounds like Yuba Bharati Krirangan, Park Circus Maidan & Geetanjali Stadium etc. Today LEXPO has become a popular people's fair and provides the visitors / buyers a very wide range of options to select the products made of genuine leather as per their taste and budget.

ILTA

Indian Leather Technologists' Association previously known as Leather Technologists' Association (India) was formed in the year 1950, under the Presidentship of Prof. B. M. Das and General Secretaryship of Prof. Moni Banerjee. It was incorporated in the year 1957 under Indian Companies Act' 1956. The prime motto of the association was to work with all segments of people sincerely devoted to the cause of Leather and allied Technology all around the World. Through the Regional Centers, ILTA strives to bring the Technologists around the country closer together and now have more than 600 members in different categories country and worldwide.

In the past the Association has been headed by many stalwarts, like Padmashri Dr. Y. Nayudamma, Padmashri Nagappa Chettiar, Mr. V. P. Pandit, Mr. S. P. Pandit, Mr. Sanjoy Sen a past IULTCS President who are reckoned with great respect in the Leather Industry. ILTA represents the country as one of the Member Society of the "International Union of Leather Technologists and Chemists Societies (IUTCS)" the foremost body of its kind in the world since 1956.

ILPA

The Indian Leather Products
Association (ILPA), established in
1987, is a premier representative
body of manufacturers and exporters
of leather and leather products
across the country with head office in
Kolkata and a Regional Office in
Chennai.

ILPA works actively to bring together manufacturer—exporters and merchant-exporters of leather products of India on a common platform to stimulate growth and development of the leather sector. It strives to develop and maintain a reciprocal relationship with professional bodies, import associations and the Chambers of Commerce abroad in order to support and promote export of leather products.

It regularly undertakes the market surveys / studies in foreign countries, organizing and participating in International and National Trade Fairs / Exhibitions, Workshops and Seminars.

It strives to provide a host of services and activities to the leather goods industry at very reasonable charges.

It provides training and skill-development to the underprivileged youth of rural Bengal and helps them with job placements within the industry.

Kolkata is a major production hub of premium quality leather goods supplying to many renowned brands and retail departmental chains across the world and almost all the major units are the members of ILPA.







Major Activities and Achievements of ILTA

- ILTA has been publishing a technical journal, known as "Journal of Indian Leather Technologists Association (JILTA)" and now getting published on monthly basis since 1959 with a Worldwide circulation.
- Other than publication of Journals & Directories, ILTA has published the following Text & Referral books also for the students of Leather Technology:
 - "Analytical Chemistry of Leather Manufacture" by Prof. P. K. Sarkar,
 - "An Introduction to the Principles of Leather Manufacture" by Prof. S. S. Dutta,
 - "An Introduction to the Principles of Physical Testing of Leather" by Prof. S. S. Dutta,
 - "Practical Aspects of Upper Leather" by Mr. J. M. Dey,
 - "Comprehensive Footwear Technology" by Mr. Somenath Ganguly,
 - "Treatise on Fatliquors & Fatliquoring of Leather" by Dr. Samir Dasgupta,
 - "Synthetic Tanning Agent" by Dr. Samir Dasgupta,
 - "Handbook of Tanning" by Prof. B. M. Das
- ❖ ILTA as the pioneer organization in Indian Leather Industry organized few of many events since its inception:
 - 1956 First All India Leather & Allied Products Exhibition at Indian Museum, Calcutta.
 - 1956 The first symposium on Chrome Tanning under guidance of Prof. B. M Das & Mr. Sanjoy Sen.
 - 1960 Published the first All India Leather Directory.
 - 1999 The International Congress of IULTCS at Chennal for the first time in any Asian Country in support of CLRI.
 - 2001 The first South Asian Conference during Golden Jubilee Celebration.
 - 2004 The first initiative to unite the industry into a hub through formation of CLCTA and played an important role, being an integral part of the CLC Implementation Committee formed by the State Govt., for implementation and its inauguration in 2005.
 - 2010 The 8th Asia International Conference of Leather Science & Technology at Kolkata during its Diamond Jubilee Celebration.
 - 2013 Series of lectures arranged in Kolkata under the title "PrIEST" [Programme for Implementing Emerging and Sustainable Technologies].
 - 2017 The International Congress of IULTCS at Chennal for the second time in support of CLRI.
 - All these were separate milestones to earn the jewels on its crown.
- LTA observes its Foundation Day celebration with "Prof. B. M. Das Memorial Lecture" on 14th August, "Sanjoy Sen Memorial Lecture" on 14th January, Prof. S. S. Dutta Memorial Lecture on 2nd February and Prof. Moni Banerjee Memorial Lecture on 15th March, when besides delivering prestigious memorial lectures, our Association felicitates the toppers (1st Class 1st) of M.Tech & B.Tech in Leather & Leather Footwear Technology Examination from different institutes countrywide.
- ILTA has been organizing since 1977, trade fairs & exhibitions of Leather, Leather Goods & Allied Products in different part of country under the trade name of LEXPO, to create mass awareness about utility of leather and leather products and providing a direct window for interaction among the end users and manufacturers for their self-sustainability and development.
- ILTA organizes HRD Programs for Skill Development and Technological Upgradation (STUP) and artisan and skilled manpower training with the objective of making themself-employed and to cater to the industry in a better way.
- In different times ILTA organizes seminars / webinars and workshops to benefit the industry about technological advancements and developments. It also offers services to the Union and State Governments in various advisory capacities and is an integra part of Bureau of Indian Standards.
- The members of our Association are attached to different councils and governing bodies of technological institutions where they have commendable contributions.



Since 195

Indian Leather Technologists' Association

[A Member Society of International Union of Leather Technologists' and Chemists Societies]

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INTERNATIONAL UNION OF LEATHER TECHNOLOGISTS AND CHEMISTS SOCIETIES

News Release from the IULTCS

IULTCS YOUNG LEATHER SCIENTIST GRANT PROGRAMME 2022 ANNOUNCED



The Executive Committee of the IULTCS is pleased to announce the 2022 grants to be awarded to two young scientists, under the age of 35, for research projects in the categories: Leather Research and Sustainability/Environment – to be conducted at a recognised institution in 2022.

"Leather Naturally is proud to continue sponsoring the Dr Mike Redwood Sustainability/Environment grant with the monetary sum of € 1,000 sponsorship" said Egbert Dikkers, Chairperson. "With Leather Naturally focussing on providing education to designers, brands and consumers, it was a logical step to sponsor this award named in honour of our founder Dr Mike Redwood."

2022 will be the eighth year of the grant, and in addition to Sustainability/Environment the IULTCS will provide the monetary sponsorship for a single sum of € 1,500 grant to a Basic Leather Research project.

Michael Meyer, Chairman of the International Union of Research Commission (IUR) of IULTCS and Research Director at Freiberg (Germany) based FILK Leather Institute expressed his appreciation of the continued engagement: "We are very happy to announce the award for the 8th year. The detailed project results of previous winners are presented in their reports on the IULTCS web site. It is worthwhile reviewing these substantial and significant investigations. We very much value the

contribution of Leather Naturally to our YLSG programme. It is a vital instrument to encourage young leather scientists to acquire awareness and become more connected to the established research community of our industry. We have seen the programme growing stronger over the past years. Last year's awards resulted in numerous, ambitious applications with innovative ideas and sustainable technologies."

Application submissions for the 2022 YLSG programme open on 01 October 2021 and Luis Zugno, President of IULTCS, asks young research talents of the industry to file innovative and thought-provoking project ideas before the 30 November 2021 deadline.

Details of the eligibility requirements are available on the IULTCS website: YSLG_application_rules_and_procedure_2022.pdf (iultcs.org)

The IULTCS requests that readers of this announcement forward the information to those institutions and individuals who could benefit from the award.

(IULTCS Website - 20/09/2021)

DR. T. RAMASAMI ANNOUNCED AS RECIPIENT OF THE IULTCS MERIT AWARD 2021





It is with great pleasure that IULTCS announces Dr Thirumalachari Ramasami has been chosen as the winner of the prestigious IULTCS Merit Award for Excellence in the Leather Industry. The IULTCS was founded for the purpose of encouraging the technology, chemistry and science of leather on a worldwide basis. It is therefore appropriate that we recognise the achievements of those of stature in our industry who have contributed significantly to our global understanding of the leather industry and its by-products. The IULTCS Merit Award is given biennially by the IULTCS Executive to an individual, whose past or current endeavours have had an extraordinary impact on our industry and provide an example for others to follow. Dr Ramasami fits this profile perfectly.

Dr T Ramasami is known for his significant contributions to the chemistry of chromium as a scientist and leadership to the Indian leather sector as a technologist and to science as a civil servant. Ramasami's investigations focussed on mechanistic chemistry, industrial applications of chromium salts and ecological solutions to industrial environmental problems. Some of his major research contributions include demonstration of anomalous reactivity of chromium(III), stabilisation of unusual oxidation states of chromium, mechanistic insights into chromium induced apoptosis, understanding host guest interactions in biomolecular systems and development of technologies for improved tanning systems.

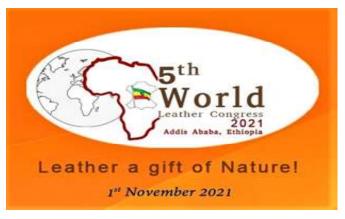
He developed a "Unified theory of tanning" by probing molecular level understanding of tanning systems. More than 12 technologies developed by his group are in commercial exploitation and several of them have been developed from first principles without international equivalents. He has guided more than 30 students for their doctoral research and authored more than 237 research publications, eight chapters in books, and numerous general articles. He holds more than 40 patents. In recognition of his contributions to leather research he was invited to deliver the John Arthur Wilson Memorial Lecture.

The Merit Award will be presented to Dr Ramasami once travel restrictions allow.

(IULTCS Website - 16/09/2021)

XXXVI IULTCS CONGRESS AND 5TH WORLD LEATHER CONGRESS BECOMING HYBRID EVENTS

Africa Leather and Leather Products Institute (ALLPI), in conjunction with the Government of Ethiopia, is excited to



announce that the 36th International Union of Leather Technologists and Chemists Societies (IULTCS) Congress, and the 5th World Leather Congress (WLC) are becoming HYBRID events, to offer participants the choice of how they prefer to attend these important international congresses. Both events will be held in Addis Ababa, Ethiopia from 01- 05 November 2021.



With the backdrop of mounting COVID-19 pandemic-related restrictions, the hybrid mode will allow all those who are not able to attend in person, to be able to participate from the comfort of their own workplace or home, from anywhere in the world.

The video recordings from the congresses will also be made available on an online platform for 30 days, to ensure that all the conference registrants can access the presentation materials of speakers, researchers and sponsors without being constrained by time zones and/or internet connectivity problems at the time of the events.

The two Congresses (XXXVI IULTCS and 5th WLC) are expected to leave delegates with great insights and informative actions that delegates could use in their respective institutions and/or enterprises.

Registration for the congresses has commenced and a new registration fee structure for remote registrations is in place – with the ability to 'upgrade' to in person attendance if travel





restrictions allow. Abstract submission is open until 31 August 2021 — with the option to submit to present a remote paper, allowing current global research to be shared, even if the presenter cannot be in attendance.

The link: https://www.iultcs2021africa.org/home will provide more information on registration and guidelines for submission of Abstracts.

There are also opportunities to support these high-profile, globally attended events by becoming sponsors, as it is critical to our industry that we continue to share our knowledge, research and best practice – various packages are available to suit all budgets.

Summary Information:

5th World Leather Congress: 01 November 2021 XXXVI IULTCS Congress: 03 – 05 November 2021 Venue: Ethiopian Skylight Hotel, Addis Ababa, Ethiopia

Working Language: English

ALLPI Website: https://www.allpi.int

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(Source: IULTCS Website)

2021 YOUNG LEATHER SCIENTIST GRANT WINNERS ANNOUNCED FEB 2021

Winners of Two 2021 IUR Research Grants Announced

The Executive Committee of the IULTCS is pleased to announce the winners of the 2021 IUR research grants to be awarded to two young scientists, under the age of 35. The monetary awards help support the work of young talent in the leather sector.

This is the seventh year of the grants which have been generously supported by industry and IULTCS alike. The Selection Committee of the IULTCS Research Commission (IUR), chaired by Dr Michael Meyer, is pleased to announce the following recipients:

Young Leather Scientist Grant 2021 Basic Research

Hon Wei Ng, Research Assistant from New Zealand Leather and Shoe Research Association (LASRA), Palmerston North, New Zealand. IULTCS has provided the monetary sponsorship for a single sum of € 1,500 grant to Basic Research.



The title of his project is:
"Study on Molecular
Level Collagen Structure
Changes of Enzymatic
Depilation Using X-Ray
Scattering". Hon Wei Ng's
project's main objective is to
evaluate the performance of
a novel environmental
isolate for enzymatic
depilation of skin/hide for

leather manufacturing. The study also aims to use small-angle X-ray scattering to elucidate molecular level structural features changes of collagen caused enzymatic depilation compared to a conventional unhairing process.

Professor Mike Redwood Young Leather Scientist Grant 2021 Sustainability / Environmental Award

Caroline Borges Agustini from the Federal University of Rio Grande do Sul (UFRGS), Porto Alegre, Brazil, will be the beneficiary of the generosity of Leather Naturally who have sponsored the €1,000 grant for the project entitled: "Hydrocarbon Release During the Bi: odegradation of Solid Waste from Tanneries for BIOGAS Production".

The objective of this project is to investigate the evolution of the hydrocarbon release, the energy efficiency and the efficiency of the treatment of the waste of the anaerobic digestion of the solid waste of tanneries. The originality of this study is gaining the innovation of how chemical, physical and environmental parameters work



is an important step in improving the efficiency and process stability of anaerobic digesters to be able to adjust in which step of the batch process the continuous process must be designed and which pre-treatments are most suitable to increase the carbon depletion of the waste.



Greener Alternatives of Leather Processing Avenues

Ms. Ayugma Sengupta^{1,} Mr. Susanta Mallick², Dr. Goutam Mukherjee³

- 1 & 3 Govt. College of Engineering & Leather Technology, Kolkata
- 2 Managing Director, Alcems Marketing Pvt. Ltd., Kolkata & General Secretary, ILTA



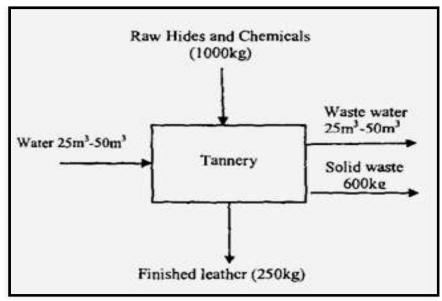
Abstract

The leather industry uses many chemicals and large quantities of water for processing. From the processing of leather, wastes are generated which include wastewater effluents, solid wastes, and hazardous wastes. In developing countries, many leather industries discharge wastes into the environment directly without any proper treatment. So, the best approach in reducing in reducing the burden of the environment would be to eliminate the problem at the root i.e. using cleaner production processes or opting for greener methods to achieve the same desired properties of leather, without harming the environment. This study mainly focuses on various methods in which implementation of cleaner production processes and pollution prevention measures can prove to be beneficial both economically and environmentally.

Introduction

There are three distinct phases in leather production: Beam house operations, tanning operations and finishing operations. Leather industry pollutes through generation of huge amount of liquid and solid wastes, also emits obnoxious smell because of degradation of proteinous material of skin and generation of gases such as NH₃, H₂S and CO₂.

Out of 1000kg of raw hide, nearly 850kg is generated as solid wastes in leather processing. Only 150kg of the raw material is converted into leather. Huge amount of solid wastes are generated in the form of fleshing, chrome shaving, chrome splits and buffing dust, hair dusted salts and limed sludged. The following figure shows the outputs and inputs in a typical leather industry:



Untreated wastewaters from tanneries have been applied on land merely to contain them at one place. The soils holding it directly and irrigated with contaminated groundwater lose productivity. Ammonia is released by deamination of amino acids during liming. Hydrogen sulphide along with acids, fats and carbohydrates are predominantly released in liming,

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deliming and tanning. Phenolics (monohydric, dihydric and trihydric) are emitted into the air during processing of hides in the post-tanning and finishing operations. All these are major causes of soil and air pollution.

The goal of cleaner production is to avoid pollution by using resources and raw materials to the utmost possible. This means that a higher percentage of the raw materials are turned into valuable products instead of being wasted. The main aims are waste minimization, pollution prevention and green productivity. Prevention and recycling investments often not only lower energy and material usage but also reduce end-of-pipe treatment costs, resulting in decreased disposal expenditures, possible reduced paperwork, and lower liability and insurance costs.

Eco-Leather

Eco leather, also called eco-friendly leather, is leather produced using processes and chemicals that are safer for the environment. These processes also result in a leather that is safer for the user or wearer over time. Some eco leather production standards limit chemical use. Other eco leather production standards specify only the use of natural materials in the production process. Features of Eco-Leather:

- 1. Lower environmental impact as compared to normal leather
- 2. Unique colour
- 3. Imperfections and natural features
- 4. Softness to touch
- 5. Sustainability

When working with leather, or wearing/using leather goods, people can become exposed to the harsh in processing and finishing that remain embedded in the leather, on a very frequent basis. The most common found include chromium, formaldehyde, azo dyes, and PCPs. Over time, exposure to these chemicals can become unsafe. So, it is important to be aware the what goes into leather during tanning, what wastes come out, and how leather goods can be made better. That awareness, with proactive changes in how tanneries operate, can lead to positive changes over time.

Eco leather production aims to ensure a lower impact to the environment and in some cases more natural chemicals used.

However, it still related primarily to the production of leather from animal hides.

Eco leather is used to make virtually all kinds of leather goods. These can include bags, handbags, shoes, boots, belts, hats, wallets, personal accessories, briefcases, saddlery, and luggage. Generally anything that can be made from leather can be made from eco leather.

Objectives of Eco-Leather

- Use cleaner energy
- Humanized management
- Effluents not harmful to human beings and environment
- Strict control on selection and application of chemicals.
- End-product safety
- By-product or disposed material possible to be recycled and easily degraded
- Save energy

Purpose of Eco-Leather

- Environmental purpose: The leather production process can be energy intensive and generate lots of wastes that include chemicals and metals. In order to minimize impact on the environment, and actually make things better over time, environmental factors are one the of leading reasons eco leather is being developed. When industries across the globe can sustain the manufacture goods more naturally it leads to a cleaner, better environment. This cycle over time is generally much preferred.
- Commercial purpose: Manufacturers and product retailers often aim to provide a product that customers are looking for. As more folks are caring about environmental impact, they are looking for goods manufactured in more environmentally friendly ways.

Use of Cactus and Mushroom for making Eco-Leather

A new research, published in the journal Nature Sustainability, proposes a new eco-leather, produced from biomass rich in fungi. The idea, developed in the laboratories of the University of Vienna, exploits the portion of mushrooms that develops





underground (the mycelia) to extract chitin, a well-known biopolymer. The substance then undergoes a chemical and physical treatment until the final product is obtained, which is aesthetically and to the touch reminiscent of animal skin. This is known as Mushroom leather and is an eco-friendly alternative to animal leather.

The eco-leather produced from cactuses is known as Desserto.

Use of Eco-friendly Tanning agents

Scientists in the Central Leather Research Institute (CLRI), Chennai, have developed new eco-friendly and eco-benign tanning agents that will help the leather industry attain the goal of cleaner and greener chrome tanning process, without compromising on the aesthetic and performance qualities of the finished leather.

These inventions have global significance since the demand in the international fashion market is for chemical-free leathers and leather products. The three new products from the chemical laboratory of the institute would provide scientific solution to the problems of release of total dissolved solids (TDS), low absorption of chromium during tanning, eliminate the water and chemical-intensive pickling process and avoid use polluting dye stuff.

Ecochrome 2000 is a chrome syntan built up without using formaldehyde. It is formulated for use in pickleless tanning and helps reduce TDs load by 50-60% and chloride load by 98-99% from the identified stream. The leathers are fuller, softer with smooth grain and meets the BIS norms.

ECosysn is formaldehyde-free polymeric syntan that enhances the uptake of chromium to over 93% and provides a means for pickle-free chrome tanning reducing the TDS in the effluent. The use of this syntan provides an overall saving of Rs 1,000-1,500 per tonne of raw material processed.

Spectratan FE is a chromium-iron based self-tanning agent which has exhaustion level of more than 90% for both the metals.

All these Chrome-tanning agents reduce Total dissolved solids(TDS) in wastewater, increase chromium uptake by pelt,

eliminates the chemical intensive pickling process and reduces the need for using polluting dyeing chemicals.

High-exhaust chrome tanning

While the conventional chrome tanning ensures a maximum of 60-70% exhaustion of chrome resulting in wastage as well as adding to pollution load, this process technology provides a process, whereby more than 90% exhaustion of chrome has been possible.

Sectional streams of chrome tanning solutions may contain about 1500-3000 ppm of chrome depending on the absorption level, causing a serious environmental concern. An approach based on closed pickle-tan loop and ALUTAN-BCS has been successfully found to ensure near total utilization of chromium. The process has been shown to offer an overall reduction of Rs. 2000/- per ton of leather processed in chemical costs in addition to the significant environmental benefits. In other words, the recycling method leads to the reduction of BOD, COD and TDS in the effluent. The unique feature of the process lies in providing an economical as well as eco-friendly approach to produce wet blue leather of improved quality.

ALUTAN is an aluminium based syntan and is a complexed aluminium, naphthalene-sulphonic acid and formaldehyde condensed product. It is a potential but partial replacement for chromium salts with high exhaustion. This produces supple, full and white leather but with little stretch. This is mainly used for suede leather.

Use of Nanotechnology

Introduction of nanoparticles instead of chemical fillers into tanning agents enhances the physical and mechanical properties of leather. In order to this, silver nanoparticles due to its properties against bio-activities they can even impart some functional properties such as anti-microbial, UV-resistance and fungal resistance of leather. Raji et al (2019) used various tannins mediated silver nanoparticles for tanning process and able to produce a stable leather.

Inorganic nano titanium dioxide and silver oxide are coated to the interiors of Hong Kong subway trains, which exhibit self-





cleaning capability by killing most of the airborne bacteria and viruses they come into contact with.

Polymer nanocomposites can be used instead of chemical fillers in finishing process of leather to produce light and rub fastness, water-resistance and to hide any irregular appearance.

Use of Biotechnology

The use of biotechnology by tanneries has increased in recent years. Enzymes extracted from plant, animal or fungal sources can be applied during different steps of the leather production process: soaking, dehairing, bating, dyeing, degreasing or in effluent and solid waste treatment. These proteins are gaining more prominence because they are considered to be environmentally friendly technologies and because of advancements made in the purification, development and improvement of enzymes. Enzymes are currently applied at various stages of leather processing, from beamhouse operations until the final stages.

Proteases hydrolyze the protein fraction of dermis layer, making the collagen more accessible to water and reducing the attachment of the basal layer. In addition, they act in the removal of globular proteins;

Lipases hydrolyze fats, oils and greases present in the hypoderm;

Keratinases hydrolyze the keratin of hair and epidermis and break down the disulfide bonds of this molecule.

Use of Switchable solvents in degreasing

Switchable solvents are a new green approach that is now emerging to facilitate both reaction and subsequent product separation. Switchable solvents are defined as solvents that reversibly change their physical properties instantly. This property is a consequence of a reversible reaction in response to an external stimulus such as change in temperature, and the addition or removal of gas. Switchable solvents are mainly based on amine, amidine and mixture of amine/amidine based compounds.

In conventional method of degreasing process, fat molecules are removed from the skin matrix in the form of emulsion, whereas in the case of switchable process, the fat molecules can be dissolved by hydrophobic switchable solvents and removed from the skin matrix. Switching the hydrophobic nature of solvent to hydrophilic can separate dissolved fat and the solvent can then be reused.

Here in this process, water is not needed and energy required for solvent-fat separation is very low.

Use of Super-critical fluids as solvent

Super-critical fluids possess intermediate properties between a gas and a liquid. It can diffuse into the solid matrix like gas and dissolve materials like liquid. This property is obtained when a substance is heated above its critical temperature and compressed above the critical pressure.

Their density lies between a gas and a liquid. Super-critical fluids have very low viscosity and high diffusivity. Thus, it does not apply resistance to the movement of particles in it.

There is a wide scope for the use of supercritical carbon dioxide fluid in leather processing. The major advantage in devising a system for leather manufacturing using supercritical fluid is the ease with which waste can be removed. The drop in pressure would change the fluid into its gaseous form leaving behind from leather and residual chemicals. It can also be used in degreasing operation.

The critical temperature of the super-critical system for leather manufacture should be in the range 0-60°C, below or above which the leather can either get frozen or denatured respectively.

Approach to cleaner production processes

 Hair-save unhairing – Enzymatic unhairing and use of organic thio compounds as unhairing agents, reduces the amount of keratinous material and mixture of sulphides used in conventional unhairing, in the wastes. It also reduces COD, BOD and TDS in tannery effluents. The intact hair is also collected as new raw material for fertilizer rather than being discharged with the effluent.





- 2) Use of plant extracts for tanning- Plant extracts or vegetable tannins from Mimosa, Quebracho, pomegranate husk and mango leaves can be used in combination with chromium for tanning. This reduces the void spaces in leather to some extent and also decreases the usage of highly-polluting chromium salts.
- 3) Carbon dioxide as Deliming agent- This is also called ammonia-free deliming. Instead of ammonium salts, carbon dioxide is used, which being a weak acid provides the suitable pH for deliming. This process reduces the dissolved ammonia and nitrogen in wastewater.
- 4) Batch washing instead of continuous washing- Washing the pelts in batches reduces the water consumption by 50%.
- Avoiding use of toxic and non-degradable antiseptics, specially those which contain arsenic, mercury and other chlorinated substances.
- 6) For degreasing, we can use ethoxylated surfactants which are easily degradable and do not increase pollution load.
- 7) Splitting of limed hides Limed hides can be split if possible, to reduce the amount of chemicals needed in processing. Also, this would ensure better penetration of chemicals.
- 8) Sludge Free Liming Process It is an eco-friendly, sludge free liming process resulting in improved quality of leather. The process involves liming the well-soaked raw hides and skins wherein, unlike the conventional process, no lime sludge is formed in the lime bath, thereby reducing the load of beam house effluent. The unique feature of the process is to carry out liming, avoiding completely the use of lime.
- 9) Lime free fibre opening -The technology relates to the use of bio-product in order to avoid lime, which is conventionally used for the purpose of fibre opening of pelts. When coupled with lime free unhairing, this technology offers possibilities of direct pickling without resorting to deliming after fleshing.

- Use of low-float methods Low-float methods should be implemented during tanning which helps to save water and chrome fixation is also enhanced.
- 11) Recycling of spent lime liquor We can recycle sulphide and lime from spent lime liquor to reduce sulphide loss by 20-50% and lime loss by 40-60%.
- 12) Recycling of Chrome tanning floats This may reduce chrome wastage upto 20% in a conventional tanning process and upto 50% in case of wool-on sheep skins.
- Installation of salt-free pickling systems and use of nonswelling polymeric sulphonic acids or pthallic acid can reduce wastage of chemicals.
- 14) Use of liquid dyes and syntans in the finishing process avoids excess use of chemicals and helps in better penetration of chemicals.
- 15) The fat-liquoring process would be less harmful with sulpho-chlorinated paraffin as compared to vegetable oil.
- 16) The hide trimmings can be used for the manufacture of animal glue or gelatin. The shavings are dechromed for 24 hours and then treated with alkali and hydrogen peroxide. Then they are used for the manufacture of parchment membrane used in lampshades, table tops and chandeliers.
- 17) Organic solid wastes from the tanneries can be used in manufacture of fertilisers or as animal feed.
- 18) Shavings from tanned leather can be used in leather board manufacture. Leather boards are used in footwear industry as insole and reinforcement.
- 19) Curing with gaseous sulphur dioxide preserves raw material for one month. However, this method is unsuitable for workers. Treatment with acid metasulphite and aluminium sulphate preserves hide for four months. Boric acid cure lasts for two weeks and shorter cures can be obtained with sodium chlorite or sodium fluorosilicate.





Conclusion

By nature, tanners are very conservative. This is not simply obstinacy against change, it is because the quality and character of leather is prone to change when the parameters of processing are altered.

Changes in the length of processes, process temperatures, float volumes, uptake of chemicals etc. influence the ultimate character of the leather. Leather being produced from a complex non-uniform natural protein material still requires considerable craft in its manufacture.

The adoption of low waste technology often requires a radical alteration of most tannery processes while, at the same time, ensuring that the ultimate product retains its marketable properties. Therefore, if a tanner is producing consistent quality of leather which satisfies his customers using a process which may be wasteful in water, energy and chemical utilization. he may resist altering his operations to comply with environmental demands.

The cost of introducing a cleaner processing method may be prohibitive and beyond the reach of a small-scale tanner. Low waste technologies, generally speaking, require better skilled personnel and closer technical control than conventional processing. Thus, the lack of properly trained staff at different levels remains one of the crucial constraints.

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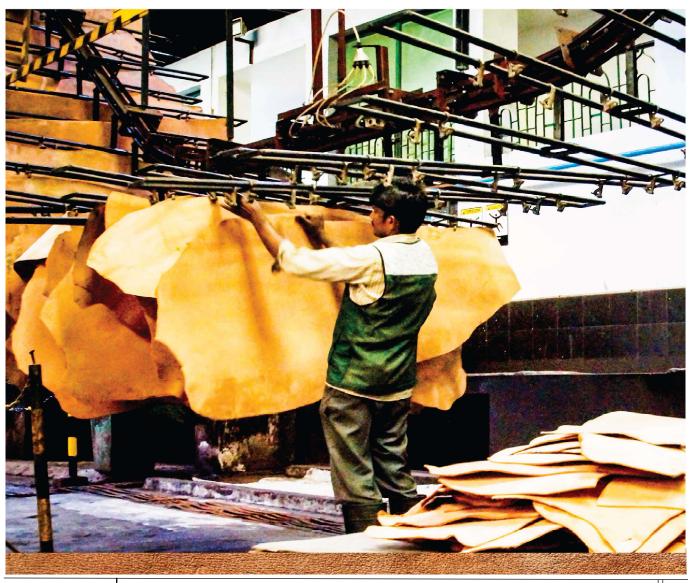
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EFFECTIVE WASTE MANAGEMENT AND SUSTAINABLE DEVELOPMENT IN KOLKATA LEATHER CLUSTER(BANTALA)

2020 - 2023

Circular Economy

Effective solid waste management

Capacity building programme



EFFECTIVE WASTE MANAGEMENT AND SUSTAINABLE DEVELOPMENT KOLKATA LEATHER CLUSTER Trainings on Occupational Health and Safety

Robust public- private partnership

Efficient water consumption practices

PROJECT PARTNERS IN ASIA































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Solidaridad Corner=



SOLIDARIDAD WINS EEF GLOBAL INDUSTRIAL WATER PROJECT 2021



Solidaridad was conferred the prestigious award for successfully implementing its 'Pollution and Effluent Management in the Kanpur-Unnao Leather Cluster' project. The project is a flagship initiative of Solidaridad in close collaboration with the National Mission for Clean Ganga (NMCG), Government of India, and supported by the RVO, Government of The Netherlands.

Leather is among the top ten forex earners for India and a source of employment for millions of people. However, owing to the nature of its production, leather manufacturing is often considered to be contributing to pollution. Solidaridad, through its 'Pollution and Effluent Management in the Kanpur-Unnao Leather Cluster' project, has been working to promote wateruse efficiency and abate pollution in the tanning sector.

The organization has partnered with Dutch entities Stahl and PUM Netherlands Experts; the Uttar Pradesh Leather Industries Association (UPLIA) and the Small Tanners Association (STA). The project was conceptualized in collaboration with National Mission for Clean Ganga (NMCG), Government of India, and Solidaridad has been acknowledged as the sustainability partner in the Clean Ganga mission.

The project has introduced and demonstrated a range of proven eco-friendly interventions to promote water efficiency and address pollution-related challenges in the cluster. Owing to its successful technical and market-based solutions, the industry and tanning community havealso come forward to accept and adopt the eco-friendly solutions. This public-private partnership (PPP)-based programme is intended to serve as a

blueprint for other projects and programmes under the 'Clean Ganga' river basin programme.

AN AWARD FOR EFFECTIVE WATER OPTIMIZATION



Water optimizations one of the major interventions under the project for which Solidaridad has been recently felicitated with the 'EEF Global Industrial Water Project Award of the Year 2021' by The Energy and Environment Foundation in August 2021. In a remarkable feat, the project has been able to save around 50 per cent of the fresh groundwater withdrawal from up to 100 tanneries at the Kanpur-Unnao Leather Cluster through simple retrofitting of the existing fleshing machines.

Mr. Tatheer Zaidi, General Manager, Pollution Management in MSMEs, Solidaridad, received the award on behalf of the organisation. Mr. Anil Razdan, Former Secretary, Government of India, was the chief guest at the event. He appreciated the innovation introduced by Solidaridad in creating a meaningful impact in one of the most challenging and critical sectors: Leather. He endorsed the eco-friendly intervention and mentioned that this has a great potential for further adoption and upscaling to the national level.

Recipients of other category of awards from India included several leading public and private sector entities viz. Reliance, L&T, ONGC, IOCL, NDRI, JSW, ACC, NTPC, and TATA, etc.

A ROYAL RECOGNITION

The project was also shortlisted during the DST-CII Technology Summit 2019 as one of the two projects in water domain to present before the King and Queen of the Kingdom of Netherlands: HM King Willem-Alexander and Queen Maxima.

Solidaridad Corner





The Dutch Minister for Water and Infrastructure, Government of the Netherlands, Ms. Cora van Nieuwenhuizen, cited the Solidaridad-led 'Tannery Project for Clean Ganga' as the ideal PPP model for Indo-Dutch cooperation on cleaner River Ganga.

MULTI-STAKEHOLDER COLLABORATION TOWARDS EXCELLENCE



A multi-stakeholder platform was launched in November 2019 under the Chairmanship of National Mission for Clean Ganga by Mr. D.P. Mathuria, Executive Director, NMCG, to discuss the progress, challenges and way forward towards a sustainable leather cluster.

Under this collaboration and as a joint initiative with Stahl, the Centre of Excellence was established in the Banthar regionto provide technical assistance and training support on the ecofriendly technologies to the tanneries. The state-of-the-art facility is designed to build the capacities of tannery workers, supervisors and other relevant stakeholders on novel

technologies, globally-recognized eco-friendly practices, chemical-use safety and management, shop-floor management and other related areas of expertise as per the global leather industry standards.

WAY FORWARD



On 15 September 2021, Shri Rajiv Ranjan Mishra, Director General of National Mission for Clean Ganga, visited the Centre of Excellence and participated in the ongoing training programmeorganized for around 40 tannery supervisors and key technical staff. Mr. Mishra appreciated the efforts and encouraged the project to further strengthen, scale up and replicate to other industry clusters.



With continued encouragement from the NMCG, Solidaridad and partners are gearing to scale this successful model to other polluting sectors, such as dyeing and bleaching (textiles), across the Ganga and its tributaries.



Did you say simple as Water?

Dr. Buddhadeb Chattopadhyay

Former Principal of the Government College of Engineering and Leather Technology, Kolkata and MCKV Institute of Engineering, Liluah, Howrah.



Some simple steps of recycling wastewater can economize the use of fresh water for domestic purposes. This will result in lesser consumption and there by lesser toll on the underground or river water. Let us consider about the in-house measures first and then may be end-of-pipe treatment particularly for housing complexes.

Let us be vigil on unnecessary overflowing of fresh water from reservoir or overhead tanks. Technology is available at a bay to auto control not at a very big price.

We use all fresh water every time we use for any purpose. We may now seriously consider some in-house recycling measures. For example, can we with some adjustment, use shower wastewater to our washing machines and the same wastewater from washing machines partly in cleaning the floors and the cars?

Can we use the second and third wash of raw rice for washing the vegetables before cooking and then the same wastewater for gardening? Can we use the same wash water for first cleaning of utensils and then use it in irrigation?

There may be so many other means of recycling that may be thought of. A fair estimate by adopting these we can save at least 30.0 L of fresh water consumption per day per family. This means about 900.0 L per month per family. If, we calculate it can give an amazing figure of 90 kL per 100 families per month.

There are technical solutions available for domestic end-of-pipe domestic effluent treatment. The plant is costly, nevertheless, can be borne by big housing complexes also. The block diagrams are available in plenty. Australia being one of the dry continents, the domestic building plan is not sanctioned; unless there is rainwater harvesting and wastewater recycling are inclusive in the plan. Anybody, if serious, can search for block diagram for domestic wastewater treatment and filtration block diagram to have a preliminary idea.

Is it impossible? Secondly, please, please carry cotton or jute bags for marketing and refuse plastic carry bags. It will not make us unsmart. If, we dig the ground now, anywhere in the city or suburban areas we will find plastics penetrated inside the earth surface and preventing water percolation underground and also the respiration of the soil. Every one of us is drawing underground water; who are replenishing them? We don't have unlimited underground water resources after all.

A fair estimate on water reserve on earth may kindly be looked into. 1) Earth's atmosphere in the form of vapour mostly 13,000 cubic kilometer, 2) Earth's interior 37,800,000 cubic kilometer 3) Earth's surface 1,320,000,000 cubic kilometer making total water 1,357,813,000 cubic kilometer. But the big question is, are they suitable for use? Nonetheless, the point is even the so-called wastewater also becomes a part of some of the components eventually as stated above. Simply because it cannot escape into the Universe.

Water reservoirs like all available wetlands and water bodies must necessarily be conserved and possibly, like the ancient Kings / Nababs, there is a need to create at least fresh water bodies of at least 1.0 acre area per 100 square kilometer initially. Where ever possible rainwater harvesting should be a compulsion.

The development that consumes all the available natural resources is hardly a sustainable growth at all. Earth so far, is the only blue planet nurturing lives. In years to come, if, we are not concerned, it will appear as only grey planet. Without water no cell and therefore, no life can sustain. Human body as a whole, contains roughly about 60% (w/w) water. Shortage will require administration of drip but that again squarely require water above all.

No Government initiatives can pull us out from the danger and every one will suffer, if, freshwater is depleted from the earth, simply because the earth is the only planet discovered so far, which has the endowed boon of water. The realization should come from within.



APLF 2022 TO RELOCATE FROM HONG KONG TO DUBAI



APLF Ltd, organisers of the 2022 edition of the APLF Leather and Materials+ exhibition, have announced that the next show will take place in Dubai rather than Hong Kong. The fair will take place on the same dates as previously announced, March 30 – April , 2022.

Recently updated government restrictions mean that visitors and residents to Hong Kong will be required to quarantine on arrival up to March 31, 2022 which covers the start of the fair. Therefore, the decision was taken to host the show at the World Trade Centre in Dubai.

David Bondi, Director of APLF, said that Dubai was chosen as it is very well connected as a regional and international transport hub and is easy to get to for exhibitors and visitors attending from Asia, especially the Indian sub-continent, Africa, Russia and Europe. He also said that the flight times from North and South America would also be less than Hong Kong and all major regions have direct flights.

Prior to the announcement, APLF said that they had consulted most of the major exhibiting countries who were broadly supportive of the move. Sophie Hivert of the French Tanners' Association and Jane Li, representing the Leather & Hide Council of America, spoke at a virtual press conference on October 13 in support of the event. Both stated that their members were very keen to meet face-to-face once again and that leather was a material that had to be experienced live rather than in a virtual setting.

Grace Lee of Informa Markets and APLF Director said that it was still early days but they hoped to attract around 850 exhibitors from 80 countries to the relocated show (fewer than the last

edition in Hong Kong in 2019) and Informa Markets offices located around the world would be working together to attract visitors as well as through national industry associations. What was previously known as Fashion Access will be merged into the APLF event.

In terms of Covid safety, Lee said that Dubai had been hosting live international events over the past 15 months and was following Covid protocols such as mask-wearing and social distancing. Dubai also has one the highest Covid vaccination rates among its population in the world at 98.1%.

The month of Ramadan begins on April 2 (a day after the show) and the World Expo in Dubai is due to finish on March 31. The plan is to revert back to Hong Kong from March 2023. APLF Ltd is a joint-venture between Informa Markets and SIC Group.

(ILM - 13/10/2021)

VOLVO CARS TO GO LEATHER-FREE AND BE VEGAN-FRIENDLY BY 2030 FOR GEN-Z CONSUMERS



Swedish carmaker Volvo Cars said on Thursday that its vehicle range will go leather-free or 'vegan-friendly' by 2030, offering instead bio-based and recycled materials to a customer base that increasingly wants sustainably sourced products.

"We've got a new generation of customers coming through, they're far more interested in the products they buy and having an ethical story behind them," Robin Page, Volvo's head of design, told Reuters. "They want to understand where the materials come from."

Volvo said the shift recognises customer concerns over animal welfare issues in the leather industry and the





environmental impacts of cattle farming. It also coincides with the sustainable aspirations of Volvo's plan to offer an all-electric car line-up by 2030.

Volvo's current all-electric C40 Recharge model is already leatherfree, and the company is exploring using materials such as Nordico - made from forestry by-products, recycled corks and plastic bottles - that head of design Page said has the same "softness and warmth" as leather.

"For someone who loves leather but is aware of the negative effects of leather on the environment, this is a good, modern way to capture the properties but is the right material for the future," Page said.

The carmaker also aims to use recycled polyester to cut its carbon footprint and linen from flax plants grown in Sweden in between crops, which replenishes the soil. Volvo will also use flax fibres for door panels.

"Consumers are not just focused on the sustainability of the end product but also the material that goes into it, including the sourcing" said Stuart Templar, Volvo's director of global sustainability.

(Economic times - 14/10/2021)

COVID 'INFECTS' SHIPMENT OF LEATHER EXPORTERS



Skeletal staff and shortage of sea containers is a concern despite exporters having enough orders. Leather exporters have enough orders on hand, but skeletal staff strength and shortage of sea containers is threatening to delay the shipment to global customers. Every year, April to June is the peak running time for leather units and export shipment starts from June 15. However, leather units are worried that this will get delayed this year.

"We have enough orders in hand, but there are no workers. They have all gone back home fearing getting infected by coronavirus. Those who are in need of money are willing to work," said Ajay Kumar Singh, Managing Director of Chennai-based Shivam Apparels.

Shortage of containers is another major problem. "Also, there is a lot of delay in getting import materials as containers are stranded at various ports across the country," he added. Sanjay Lulla, Managing Partner at SM Lulla Industries Worldwide, said exporters have been allowed to work but there are many absentees due to fear of getting infected. Container shortage is a huge issue, he said.

Better planned

The leather export units during the current Covid-19 lockdown are braving many challenges. "However, unlike the first lockdown, the units have better planned this time in terms of rotating their staff; vaccinating them and ensuring that exports are sent on time," said M Israr Ahmed, Regional Chairman (South), Council for Leather Exports, and Director of India Shoes Exports Pvt Ltd.

The industry associations spoke to the government to ensure that everything was smooth, and employees are allowed to come to work by showing their ID cards, if stopped by the police, he said. "We cannot run the unit with 100 per cent production due to physical distancing and issues like transportation of people. The average production should be around 70 per cent," he said.

(Business Line - 12/09/2021)

ASSOMAC TALKS TO BE LAUNCHED AT SIMAC TANNING TECH







Alongside a program of virtual roundtables for visitors both in-person and online, SIMAC Tanning Tech 2021 will feature a new series of talks where international technology centres and institutions will explain their latest research and projects.

ASSOMAC Talks will feature ten international technological centres and institutes who specialise in leather, at the show for the first time to reveal their latest R&D results, upcoming work and their perspectives on the future of the leather and fashion industries.

Visitors will be able to contact and connect with the speakers directly through the Simac Tanning Tech app, a brand new feature for this year's digitally supported event.

The ASSOMAC Talks speakers come from technical institutions around the world, including:

- > CTCP (Portugal)
- > INESCOP (Spain)
- > SATRA (UK)
- > CTC (France)
- CIATEC (Mexico)
- Italy-Pakistan Footwear Technology Centre & Pakistan Shoe Design Hub
- > Italy-Vietnam Footwear Technology Centre (Vietnam)
- CLRI & GCELT (India)
- CMTC (Morocco)
- CIMAC (Italy)
- SENAI (Brazil)

The 2021 edition of Simac Tanning Tech will take place at the Fiera Milano Rho exhibition grounds in Milan from September 22-24.

(ILM - 10/09/2021)

ANYA HINDMARCH LAUNCHES BIO-DEGRADABLE LEATHER COLLECTION



The British designer has announced the launch of a collection of biodegradable leather bags after two years of research and development.

According to the brand, the leather was created through a fully traceable chain of suppliers which includes Swedish cattle farms, a German tannery and leather goods manufacturers in Andalusia, Spain. The leather is reportedly tanned without chrome and finished with liquid silk. The finished bag is "hardware-free", unlined and stitched together with biodegradable cotton. It's hand-coated with a wax made from natural oils, and will need regular maintenance to remain in good quality.

Hindmarch said: "We want this [bag] to last forever and it should last forever if you look after it. The point is that if this ever did end up in landfill, it would break down... [but] if you did actively want to compost it, I'd rather you sold on eBay, or gave it someone else."

(ILM - 12/10/2021)

COVID-19 HAS CHANGED THE WAY COMPANIES NEGOTIATE



Increasingly, negotiations in the hide and leather industry are being conducted virtually, remotely and online. At the same time, across the globe, as the prices of both inputs and outputs have become much more volatile, all traditional transaction terms are now up for grabs as supply chains are coming under protracted strain.

This is the new status quo, and it is becoming increasingly clear that this situation may never go back to the way things used to work before COVID19. Consequently, hide and leather negotiators must now carefully re-evaluate their assumptions on real-time basis, prioritise their tasks and involve key stakeholders much more often.

News Corner



HIDEXE software as a service (H-SaaS) and the related mobile app represent an excellent and highly affordable tool for the leather industry that allows hide and leather traders to stay up to date on all current trades and related negotiations, be it on the price discovery side or on the logistics/fulfilment side.

H-SaaS was developed by leather professionals for leather professionals, and incorporates numerous time-tested tools, such as auctions and RFPs, automated ICHSLTA documentation features and notifications and other CRM/ERP modules. HIDEXE enables all market players to participate and benefit from an optimised, standardised and integrated global digital ecosystem for hide, skins, leather and by-products.

HIDEXE's unique approach to software architecture makes this tool very intuitive for the leather procurement professionals from the outset, as it has not changed how people negotiate but only transformed the offline interactions into the online real-time communication, supported by the automation of repetitive tasks that saves users time, money and hassle.

HIDEXE.com is leading the way for the industry to modernise and overcome its growing list of challenges. Start using H-SaaS today and prosper.

*This article is an advertorial provided by Hidexe.

(ILM - 27/09/2021)

TRANSPORT LEADERS DEMAND SUPPLY CHAIN SECURITY



In an open letter published by the International Chamber of Shipping, associations and corporate leaders from throughout the global transport industry have come together to call for governments to ensure the free movement of transport workers, end travel bans and remove restrictions that continue to impact the industry.

The letter comes from IRU, the world road transport organisation, IATA, the International Air Transport Association, ICS, the International Chamber of Shipping, and ITF, the International Transport Workers' Federation. In the letter, they said: "Transport workers keep the world running and are vital for the free movement of products, including vaccines and PPE, but have been continually failed by governments and taken for granted by their officials."

The organisations say that heads of governments around the world have failed to listen or to take decisive actions needed to solve the current transport crisis. The letter calls for these world leaders to work together to increase the global vaccine supply, prioritise vaccines for transport workers and guarantee their free and safe movement.

They added: "We ask that our transport workers are given priority to receive WHO recognised vaccines and heads of government work together to create globally harmonised, digital, mutually recognised vaccination certificate and processes for demonstrating health credentials (including vaccination status and Covid-19 test results), which are paramount to ensure transport workers can cross international borders.

"We also call on the WHO to take our message to health ministries. Despite early engagement at the outset of the pandemic and issuance of guidance, health and transport ministries have not utilised it, resulting in the situation we face today. We need the WHO and governments to work together to ensure this guidance is accepted and followed."

You can read the full letter on the International Chamber of Shipping website.

(LeatherBiz.com - 05/10/2021)



This article was originaly published in Vol.-10, No.-11 Nov' 1968 issue of JILTA.

"A STUDY OF THE SOLUBLE AND INSOLUBLE SALTS IN SOME VEGETABLE TANNING MATERIALS".

PRT-XII

N. N. Guha

COMPARISON WITH THE LITERATURE AND ACCURACY OF THE ANALYTICAL METHODS:

There is little, if any, information in the literature regarding the total or insoluble salts of tanning materials with which to make a comparison with the figures obtained in the present work.

Many results are available for extracts. Not many are expressed in such a way that a direct comparison would be possible with the writer's figures. Furthermore unless additions had been made during the extraction it is not to be expected that the results obtained here for total soluble salts would be significantly different from published figures.

It was thought however that certain comparisons with the literature were possible and would be of interest. Some figures are available for the individual cations and phosphorus content of extracts: A few similar results have also been found in the literature for the raw materials.

These published results have, as far as possible, been recalculated where necessary on a basis similar to the present figures and are given in the following tables.

TABLE-I
Phosphorus content (as P₂O₅)

Material .	%on raw m	THE A	%01	%on extract		
the state	Tolliday(*)etal	Present work		Phillips(2)	Present work (dry extract)	
Myrabolam	0.160	0-186		0.340	0-220	
Chestnut	_			0 034	0.077	
	Todeschini 3			. The second		
Valonia /	0.111	0.130		<u> </u>	F	

*G. P. Ghosh Scholar (1958) of Calcutta University to study abroad



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TABLE-2

Cations in Myrabolam extract

-		Tolliday et	al ¹	Cheshi	re 4	Present work	
Material	Cations	%on extract	mgm. equiv. cation/100gm. extract.	i i i c	mgm. eq. ation /100gm. extract	mgm. eq. cation /100gm.extract (air dry)	
	Ca	0-18	9-0	0-18	9-0	6.6 (Average	
CARRELL	JU 98 35	1 4 1 - 12 4	and the kinds		THE THE REAL PROPERTY.	of diffrent	
						methods)	
	Mg	0-11	90	0.06	5-5	4.7 (., .,)	
HALL TO S	Na	0.02	1.0	-	_	28	
Myrabolam	K	1-25	32.0	1-6	41	18	
	Cu	0.006	0.2	_	- 1200		
	Fe	0-18*	0.9	-		1.03	
	Al ·	0.053	5'9	0-10	-11		

^{*}This figure of Tolliday etal appears to be in error. It should be 0.018 to correspond to 0.9 mgm. equiv.

TABLE-3

Cations in Valonia (Raw material)

Materi	al .		ations		Todeschini 3	7	Present work
-	Ca (m	gm. eq./100	gm. rav	w material),	36		17 (Average)
	Mg	(,,	,,)		8-36		5.0 (.,)
Jan Jan	Fe	(, ,,	")	10-21000	3.2	THE SALE OF	2.0
Valonia	Al	(,,	,,)	- 40 1	3-4		
	*K+Na	(,,	.,,)		17	Carlotte Property	19
	SiO.	(%on ash)		3.4	12.	_
	SO ₃	()		- Charles	6.05		<u>-</u>
	CO	(,,)			18.66		

^{*}This figure was calculated from the difference between the sum of the other constituents given by Todeschini and the total ash. It was calculated as K but would include Na.

TABLE-4

Ratio	f some specific cations of	Mimosa and Chestnut	(Raw materia®)	
Material	Cation ratio	Imperial Institute 8	Present work	
Chestnut	Ca: Na+K	5:1	5.5 : 1	
Mimosa	Ca: Na+K	4:1	3-3:1	•



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Ca & alkalinity of ash figure in Sumac (raw Material) mgm. equiv. /100gm. Original material.

Material	A PE	Thiry 5	Present work		
	Ca	Alkalinity of ash	Ca	Alkalinity of ash	7 . 81 . 5
Stmac -	123	146	57	87	3 -29

Comments on Tables 1-4

The comparison with the published results on the whole shows that similar analytical figures are obtained for different samples of myrobolams, valonia, mimosa and chestnut as measured by the various authors.

The outstanding differences are in the figures for the sodium and potassium for myrobolam extract. Both Tolliday and Cheshire found that the predominant cation was potassium and only a very small amount of sodium was present. In the present work, the two figures were much closer and sodium predominated.

The total sodium and potassium was much the same in the present study as found by Cheshire, although Tolliday's results are rather lower. Thus, as far as lyotropic properties are concerned there would not be much difference between the three myrobolam extracts as judged by these figures. The Ca plus Mg contents differ sufficiently however to lead one to expect some variation in lyotropic phenomena between the extract studied here and that analysed by Tolliday.

From the point of view of general accuracy of determination of the individual alkali metals, the figures compared in the table for myrabolams are disturbing. One would hardly expect such a large variation in the potassium sodium ratio even between different samples. Therefore, as a check on the figure for sodium obtained here, an alternative analytical procedure was used which confirmed the present figure.

It is worth pointing out that Tolliday's paper1 is confusing on the whole question of the determination of the individual amounts of sodium and potassium. His method as described for sodium is based on the difference between the sum of the other metals and the sulphated ash. This calculation would give only the sum of the alkali metals. He dose not give a seperate procedure for potassium although he quotes a figure for it.

In addition, his method of calculation assumes that the iron and aluminium would be left as sulphates after igniting the sulphated ash. It is at least possible that they would be converted to the oxides and thus his results for Na+K may have been vitiated. In spite of this, he apparently obtained a good agreement between the sum of the metals and the total ash figure.

Cheshire did not describe how he determined the potassinm but this was probably by difference also and may have included the sodium.

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The comparison with figures for valonia (Table-3) gives a reasonable agreement except for the Ca figure,

Table 4 compares some ratios of the principal cations in chestnut and mimosa. Only ratios can be compared on the figures available from the Imperial Institute. On the whole, the determinations compare reasonably well.

The comparison with Thiry's results for sumac show very large differences from the present results. Thiry's figures for calcium (method not described) even if they include magnesium, which was found to be very high in the writer's sample, are higher than even the total salts now found. Thiry's results for Ca arc confirmed, however, by his very high alkalinity of ash figure which is almost twice as high as that obtained in the present study.

Thus it would appear that very large differences may be found between different samples of sumac as regards alkalinity of ash and calcium content.

ACCURACY OF THE ANALYTICAL METHODS

The reproducibility of the analytical methods used in the present study has already been discussed. It was generally found to be satisfactory for most purposes. However, it was considered worthwhile to check the general accuracy of the This was done as follows :procedures.

10 gms. each of mimosa and myrabolams were ashed, 10 ml. of a synthefic salt mixture of known composition was added, evaporated, ashed and sulphated as usual and made upto 250 ml. The composition of the synthetic mixture was as follows:-

1. 300 A	Per I	0 ml.	Calculat	ed per 100 gm. tanning to which it was added	material
Added	Ca — 0·40	mgm. equiv.	Ref.	4·0 mgm. equiv.	STATE OF
as	Mg — 0·49		70a" vi	4.9	
chlorides	K — 0.90		· · · · ·	3.0	
	Na — 0·30			20 9	i terre
	Total— 2.09	1) . 1)		20 9 ,, ,,	· b

Single samples were ashed but the final solutions were analysed in duplicate for total salts content by BaCI, sulphated ash as well as Resin shake method on sulphated ash, to check the accuracy of the two methods. They were also analysed in duplicate for the most important cations which gives a further check on the accuracy of the flame photometric and EDTA methods."

Having obtained results (calculated as mgm. equiv. per 100 gm. material), for the tanning materials plus synthetic mixture, the figures already obtained for the former could be subtracted and the experimental difference compared with the known added amount of salt.

The experiment was conducted along these lines in order to obtain conditions as closely similar to those pertaining in the original analyses. Thus any interference from trace metals or other constituents will occur in both series of analyses and a truer assessment of accuracy should be obtained than if a synthetic mixture alone were analysed.

Certain assumptions are involved here; the main one is that most analytical errors are proportional to the total amount of material being estimated. This type of error should become apparent with the procedure used here.

Mimosa and myrabolams were chosen for this study because they react rather differently on ashing and the distribution of cations is also very different.

ACCURACY

TABLE-5

Accuracy of BaCl, sulphated ash and Resin shake method for total salts

		Mgm. equ	iv. / 100 g	m. Original	materia	I (Air	dry)		
Material	- BaCl ₂	Resin shak method	BaCl ₂	nental value Resin shake method	BaCl ₂ method	Resin	Theoretical amount of salt added	BaCl ₂	olute ror Resin shake method
Mimosa	39	37	61-7	57	22-7	20.0	20-9 -	+ 1.8 -	- 0-9
Myrabola	m - 45	44	63.4	63.3	18.4	19.3	20.9 -	_ 2.5 _	- 1.6

TABLE-6

Accuracy of Ca plus Mg figure [EDTA method]

Mgm. equiv. / 100 gm. Original material (Air dry)

Material tan	plus Mg in ning material	Experimental value of Ca plus Mg. after adding extra amount	11 — 1	Theoretical amount of Ca plus Mg added	Absolute error.	
Mimosa	34.0	41.7	7.7	8.9	— I·2	
- Myrabolam	10-3	21.7	11:4	8.9	+ 2.5	

TABLE-7 A

Accuracy of Mg figure by EDTA Method

Mgm. equiv. / 109 gm. Original material (Air dry)

Material	Mg.	in tanning material	, E	xperimental value Mg. after adding extra amount II			Theoretical amount of Mg. added.	Absolute error.
'Mimosa'	: 6	6.5		12.0	5.5	2.0	4.9	+ 0.6
Myrabola	m(∵:	5.0	2.61	10-7	7·1· 5·7	4.4	4.9	+ 0.8



acquir		TABLE-7B	Tarabasa'a w Prob	THE PERSON TO
The second second		Mg figure by Flame		er raybras
n it is the fall	Mgm. equi	v. /100 gm. Original	material (Air dry)	2.5
	AND THE RESERVE TO A SECOND SE	A PAGE OF THE PAGE		
Material	Mg in tanning material	of Mg after adding	Theoretical amount	Absolute error -
Material				
Material Mimosa		of Mg after adding		the state of the s

TABLE-8A

Accuracy of Calcium figure by E D T A method Mgm. equiv. /100 gm. Original material (Air dry)

Material	Ca in tanning material	Exprimental value of Ca after adding extra amount		Theoretical amount of Ca added	Absolute
- 415 FAD.					
Mimosa	27:5	29.7	2.2	4.0	—I·8·
Myrabolam	5.3	11.0	5.7	4.0	+1.7

TABLE-8B

Accuracy of Calcium figure by Flame photometer method

Mgm. equiv. /100 gm. Original material (Air dry)

	Material	Ca in tanning material	Experimental value of Ca after adding ext ra amount	11-1	Theoretical amount of Ca added	Absolute
_	Mimosa	26.5	32-1	5.6	4.0	+1.6
-	Myrabolam	6.5	11.7	., 5.2	4.0	+1.2

TABLE-9

Accuracy of Na and K by Flame photometer method

Mgm. equiv. /100 gm. Original material (Air dry)

SODIUM				POTASSIUM						
Na in tanning material Material	extra		Theoretical mount of Na added	Absolute error	K in tanning material	Exp. value of K after adding extra amount		Theo- retical amount of K added		Absolut error
Haterial	amount II			*	I_{i}	H			-	9
Mimosa 2.8	4.8	2.0	3.0	. —1.0	5.7	14.4	8.7	9.0		-1.3
Myrabolam - 18-0	21.7	. 3.7	3.0	+0.7	13.0	19.5	6.5	9.0 .		-2.5



Comments on Tables 5-9

The total salt figures given in table 5 show that both the BaCla method and the resin shake method are reasonably accurate. The absolute error was about 1.3 mgm. equiv. per 100 gm. material for the resin procedure. Thus on a salt figure of 40 mgm. equiv. the error would be 3-4%. As found previously the resin method always tends to give low results,

The BaCl, results were low for myrabolams but high for mimosa with an error corresponding to ± 5% for a salt content of 40 mgm. equivalents.

The comparison of the EDTA and flame photometer results for calcium show that the latter procedure is rather more accurate. This was expected as the end point with the calcium hardness indicator tablet is not very sharp. However the two methods agree reasonably well and both may be taken to be accurate to at least ± 10% on a figure of 20 mgm. equivalents.

The errors in the Mg results are greater because they are based on difference figures. In the expriments under discussion, the results using the EDTA calcium figures in calculating the Mg contents were more accurate than when the flame photometer Ca results were used. Even so the former figures showed errors of about 0.7 mgm, equivs. which on a Mg figure of 5 mgm. equivs. gives a percentage error of 14%. It is felt that there is little reason to suppose that in general this method of obtaining the Mg content is not likely to be superior to the alternative procedure in which errors of ± 40% could easily result on a figure of 5 mgm. equivs. of magnesium.

Table 9 gives the results for sodium and potassium. The first point of interest is that the larger amount of calcium which is present in mimosa gives a much greater interference in the determination of sodium than for myrabolams. In spite of this, the correction which is used is seen to be effective as the absolute error in the determination of sodium in mimosa is little larger than for myrabolams.

The average absolute error for sodium was about 0.8 mgm. equivs. which on a low figure of about 5.0 mgm. equivs. (fairly common for tanning materials) would mean a percentage error of about 16%.

The potassium contents may be generally expected to vary more between different materials than the sodium contents. It is seen from the present work that a figure of 20 mgm. equivs. may be taken to be accurate only to $\pm 10\%$.

The drawbacks in practice are not quite as serious as might first appear. The expression of results in terms of mgm, equivalents is a covenient one in comparing different metals and also when summating figures for individual cations

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for comparison with total salt figures. It is easy however on this basis to loose sight of the correct order of magnitude of the substances being determined.

The errors may be placed in better perspective when the results are expressed on a percentage basis. Thus for the raw materials analysed here, the figures for the relevant metals may be given as below.

		• • •		- 4			The second second	
Material		Ca plus Mg (Expressed as Ca)	 Ca (EDTA)		Ca (Flame photometer)	Mg		
		1	 111		411	1-11	1—111	
Mimosa	7 275	0·68±·04	0·56± 04		0·54±·03	0.08+.01	0.09 +.02	
Sumac		1.58± 04	1-14士 04		1:12±:03	0.28+.01	0·28 ±·02	
Chestnut		0·2±·04	0.19±.04		0·20±·03	0.01 ± .01	0·0002±·02	
Myrabolam	P	0·2±·04	0·10±·04		0.13+.03	0.06+.01	0.04 + 02	
Valonia		0·44±·04	0:32 + .04		0.34+.03	0.06+.01	0·05 ±·02	

% on Raw material (Air dry)

Now it can be seen that certainly for the Ca plus Mg or Ca only, the accuracy of the figures is quite adequate for most purposes. The Mg results are rather unsatisfactory and a direct method for the determination of small quantities of this metal would be desirable with certain materials,

A similar assessment may be made in relation to the sodium and potassium figures. It is seen that for most purposes the figures will be accurate enough. For the five raw tanning materials studied the range of values would be on a % basis 00·2—0·41% ± 0·02 Na and 0·04—0·72% ± 0·08 for K.

It should be noted that the method of assessing the accuracy of the analytical procedures used here may have given in some cases an exaggerated picture. Because the calculation was based on a difference figure of two experimental results, it is possible that the assessed error could be as much as double the error involved in any given experimental result. In other cases, it is just as possible that the assessed error is lower than the true one because errors of similar sign may have cancelled out.

If the accuracy had been assessed using a synthetic mixture alone, the results would have been easier to interpret. However the advantage of approaching true experimental conditions as closely as possible would have been lost.



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A correct statistical assessment of the errors would require a large number of analyses using pure compounds. The experiments discussed here, however, give at least an approximate idea of the reliability of the methods.

[Concluded]

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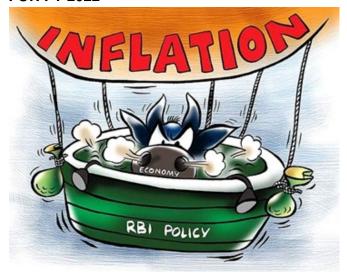
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RBI CUTS INFLATION PROJECTION TO 5.3% FOR FY'2022



The Consumer Price Index (CPI)-based inflation is now projected to be at 5.3 per cent for 2021-22 with risks evenly balanced.

In its August policy, the central bank had estimated inflation to be at 5.7 per cent due to supply side constraints, high crude oil and raw materials cost.

"The CPI headline momentum is moderating with the easing of food prices which, combined with favourable base effects, could bring about a substantial softening in inflation in the nearterm," RBI Governor Shaktikanta Das said while unveiling the bi-monthly monetary policy.

On a quarterly basis, the CPI for Q2 has been projected at 5.1 per cent: Q3 at 4.5 per cent and Q4 at 5.8 per cent.CPI inflation for Q1:2022-23 is projected at 5.2 per cent. Headline inflation continues to be significantly influenced by very high inflation in select items such as edible oils, petrol and diesel, LPG and medicines, he said. "Efforts to contain cost-push pressures through a calibrated reversal of the indirect taxes on fuel could contribute to a more sustained lowering of inflation and an anchoring of inflation expectations," Das noted.

On the other hand, a very low seasonal build-up in vegetable prices, declining cereal prices, a sharp deflation in gold prices and muted housing inflation have helped to contain inflationary pressures. Going forward, he said, several evolving factors provide comfort on the food price front. "Its momentum is expected to remain muted in the near term. "Cereal prices are expected to remain soft due to likely record kharif foodgrains production and adequate buffer stocks. "Vegetable prices, a

major source of inflation volatility, have remained contained in the year so far with record production and supply side measures by the government," he said.

Unseasonal rains and adverse weather-related events, if any, in the coming months are, however, upside risks to vegetable prices, he said. Supply side measure by the government for edible oils and pulses are helping to temper price pressures However, an uptick in prices of edible oils is seen in the recent period, he pointed out.

According to Das, improvement in monsoon in September, the expected higher kharif production, adequate buffer stock of food grains and lower seasonal pickup in vegetable prices are likely to keep food price pressures muted. Observing that core inflation remains sticky, he said that elevated global crude oil and other commodity prices combined with acute shortage of key industrial components and high logistics costs are adding to input cost pressures.Pass-through to output prices has, however, been restrained by weak demand conditions, he added.

"We are watchful of the evolving inflation situation and remain committed to bring it closer to the target in a gradual and non-disruptive manner," Das said. Headline CPI inflation stood at 5.3 per cent in August, registering a moderation for the second consecutive month and a decline of one percentage point from its level in June 2021. The key driver of the disinflation has been the moderation in food inflation even as fuel inflation edged up and CPI inflation, excluding food and fuel inflation (core inflation), remained elevated.

(PTI - 08/10/2021)

GSTN BLOCKS RS. 14,000-CRORE INPUT TAX CREDITS OF 66,000 TAX PAYERS







The government had introduced Rule 86A in GST rules in December 2019 giving powers to taxmen to block the ITC available in the electronic credit ledger of a taxpayer. GST Network on Tuesday said it has blocked Rs 14,000 crore worth of input tax credit (ITC) of 66,000 businesses registered under GST.

Responding to social media posts based on an RTI reply about the Rs 6.14 lakh crore of ITC blocked under Rule 86A of GST laws, GSTN tweeted that the figure includes erroneous data entries made by the taxpayers. "ITC of approximately Rs 14,000 crore involving 66,000 taxpayers stands blocked as on date. This is only 0.38 per cent (approximately) of average ITC utilised by all taxpayers in a financial year," tweeted GSTN, the company that handles the technology backbone for goods and services tax.

The government had introduced Rule 86A in GST rules in December 2019 giving powers to taxmen to block the ITC available in the electronic credit ledger of a taxpayer if the officer has "reasons to believe" that the ITC was availed fraudulently. There are currently 1.32 crore taxpayers registered under GST.

(Business Standard - 27/09/2021)

EXPORTS RISE BY 22.63% TO \$33.79 BN IN SEPTEMBER



Merchandise imports stood at \$56.39 billion in September, an increase of 84.77 per cent compared to the year-ago period.

The trade deficit in September widened to \$22.59 billion as against \$2.96 billion in the same month last year, the data showed.



(PTI - 14/10/2021)

HOW TO SAVE YOURSELF FROM FINANCIAL FRAUDS, ONLINE AND OFFLINE



There's very little you can do about cybercrime at your end, apart from being more vigilant. But certain things that you should do can make a lot of difference. India recorded 50,035 cases of cybercrime in 2020, an 11.8 per cent surge in such offences over the previous year, according to the National Crime Records Bureau (NCRB) data.

The Reserve Bank of India (RBI) last week once again cautioned bank customers of fraud, including those in Know-Your-Customer (KYC) cases. In fact, certain frauds have become more prevalent than others, and being aware of them is the first step towards protect yourself.

Mayur Joshi, chief executive officer, Indiaforensic.com, a company engaged in the prevention, detection, and investigation of frauds says, "It is necessary to learn, to read about these scams." Here are some such frauds, their methods and what you can do to avoid them.

Economic Corner____



KYC Fraud: Due to the pandemic, many people stopped visiting bank branches, providing fraudsters an opportunity to use KYC as a reason to engage with customers by pretending to be bankers. Ritesh Bhatia cyber-crime investigator, cybersecurity and data privacy consultant, says, "The modus operandi is simple. "You get an unsolicited SMS saying your card or account will be blocked, or rewards points will be disabled—the kind of message that creates panic in the customer. "And that customer naturally reacts to the SMS, without considering the legitimacy of the message." Once you call the number mentioned in the SMS, they entice you for personal details under the pretext of KYC verification. For instance, you will be asked for account or login details, card information, PIN, OTP, etc. Bhatia says, "They may also ask you to install a remote access app, which will give them complete access to your mobile." The fraudster quickly cleans the account empty, while the victim keeps getting SMS of the amount debited from the account.

What to do: Remember the KYC update will never happen via a third-party app. Bhatia says, "You should get in touch with the bank or card issuer—not on the number in the SMS, but the one on the reverse of your card—or call your bank customer care." Don't even go by web-searches, as fraudsters are also spreading fake customer care numbers of banks or UPI platforms online. Yash Tyagi, chief technology officer (CTO) CASHe, says, "Be very careful to whom you give out your information or documents for KYC purposes as well, even if you are doing so on a website. "There are many fraud sites that collect such data. Fraudsters can make copies of KYC data and use it to apply for loans." So it's not just SMS, calls or email you should be wary of, but websites as well.

Sim Swap Fraud: Swap simply means exchanging one thing for another. Let's say you have a 3G SIM card and want to upgrade to 4G. You request a swap 3G SIM for a 4G SIM from the service provider. This is an authentic SIM swap. Here you are putting the request to your service provider who deactivates your old SIM and gives you a new one, which activates within a few hours. Our mobile phones are loaded with information, right from contact lists, photos, emails, and SMS to financial details such as ATM withdrawals alerts and one-time passwords sent by banks for net banking transactions. Joshi says, "The SIM Swap fraud is a nightmare that many mobile holders faced during the pandemic. "Many users were locked in when they started receiving messages that their SIM card has been blocked or the request for changing the SIM had been received."

Fraudsters use SIM swap techniques to steal your financial details by blocking your SIM card and exchanging it with a fake one. Joshi says, "The swap stars approach the service provider (posing as a genuine card holder, with fake papers), requesting to swap the SIM. "After verification, the service provider deactivates the old SIM. "The fraudsters get a new active mobile SIM card." This means once the SIM is swapped, they get access to your OTPs, financial accounts and card related alerts, which they used to commit the fraud. Before contacting a service provider, the fraudster will usually engage in some form of social engineering to try and gain information about their intended victim that can be used to answer security questions related to the victim's mobile number.

Joshi adds, "This can be done by researching the victim's social media accounts or gathering information about them from other public sources. "The person attempting the SIM swap might also send phishing emails to a potential victim in the hope of obtaining other sensitive information that can be used to unlock his mobile phone number." Phishing is a kind of e-mail fraud technique in which the crook sends out genuine-looking emails or website links in an attempt to gather your personal and financial information.

What to do: Don't give away your details to anyone. If you see no service on your SIM, contact the service provider at the earliest. If your SIM has been deactivated at midnight, you can't do much about it, really.

UPI-related Frauds: Unified payments interface (UPI) has a feature in which you or the merchant can send the user a request to collect money. This feature is being used by fraudsters on second shopping websites. Manoj Chopra, head, innovation & product development, InfrasoftTech says, "When you try to sell an item on such a site, fraudsters feign interest in buying and send you a collect money request instead of sending money. "Remember, you don't need to authorise a transaction if the money is being transferred to your account, but the fraudster makes you believe you do and you end up sharing the PIN, and your hard-earned money gets re-routed."

What can you do: Remember when you are receiving money in your bank account you don't have to give a PIN or OTP. Likewise, when you are receiving money in UPI you don't need to enter any PIN. Treat your PIN exactly like you treat your ATM PIN. Don't disclose it to anyone.

Economic Corner—



Offline Frauds: Oftentimes we take cash withdrawal from an ATM casually, not realising that a little carelessness could cost us our hard earned money. Shoulder surfing is such a danger associated with ATMs. Shoulder surfing is, in simple terms, when someone stands close to you or at a very close distance in order to get information. Chopra says, "So, while using an open ATM, be careful that nobody is shoulder surfing you. You can never tell whether or not the person shoulder surfing is a fraudster. "Such people stand close to you to get the personal identification number (PIN) of your card while you are feeding it." Once your PIN is compromised, it can be used by fraudsters in ways you can't even imagine. Chopra says, "He could also have tampered with the ATM, by inserting a device in the ATM card slot. "So, when you punch your PIN, the device captures the number and other information stored on your card." Fraudsters who use the data to make cloned cards and withdraw cash at overseas ATMs, or shop online.

What can you do: First, look closely at the card slots in the ATMs. Ensure that there ae no parts jutting out, no broken pieces, no cracks or any glue-like substances around the slot. It's a good practice to cover the hand while punching your PIN on the key. Also make sure no one is shoulder surfing. Things to keep in mind: There's very little you can do at your end, apart from being more vigilant. But some things that you must do can make a lot of difference. First and foremost, follow the basic online security hygiene against phishing. (See box). Ankit Ratan, co-founder and CEO, Signzy, an Al-based banking workflow automation solutions provider, says, "Use the facility that allows you to set and modify transaction limits on your cards and savings account. "That way, you will be able to reduce the risk considerably." You can set limits on all types of translations—domestic, international, POS, ATM withdrawals, and online. Banks also allow you to switch on and switch off your debit and credit card. Imagine the peace of mind when you temporarily switch off a card you aren't using and set a limit one those that you use. This way at least some damage will be next to zero. Use robust passwords which is a non-word with multi-factor authentication and make it long.

Follow the basics

- Practice safe clicking- be careful while clicking on attachments, links and emails
- 2. Double check URLs of websites
- 3. When using a personal laptop for office work, create a separate user account.

- 4. Keep your systems and software updated
- Change your home Wi-Fi default settings and passwords to reduce the potential impact on their work of an attack via other connected devices
- 6. Watch what you share on social media
- If someone calls asking for sensitive information, say
 No. Call the number on the reverse of your card or mentioned on the Check-book

(Business Standard – 20/10/2021)

HOW INDIA CAN ACHIEVE HIGH GDP GROWTH IN THE MEDIUM TERM



There has been some good news on the economic front for India lately. In its World Economic Outlook, the International Monetary Fund sood by its real GDP growth forecast of 9.5 per cent for 2021 and 8.5 per cent for 2022. On the other hand, the IMF cut its China growth projections for 2021 and 2022 by 10 basis points each — to eight per cent and 5.6 per cent, respectively.

Thus, India looks set to get the tag of the world's fastest-growing large economy this year and retain it next year. Keep in mind, however, that while the Chinese economy had grown 2.3 per cent in FY21, the Indian economy had contracted by 7.3 per cent owing to the Covid-19 pandemic.

However, in the short term, the Chinese economy is facing several headwinds. Amid a struggling property sector facing tighter policy measures and a looming energy crisis, China's economic growth tumbled more than expected in the third quarter. As The Economist recently explained, China's economic growth at present is suffering a "triple shock from energy, property and the pandemic". The woes of the indebted Chinese property giant Evergrande are also well known across the world by now.

Economic Corner



Another dampener is the fact that the Chinese government has imposed severe restrictions on the country's tech companies.

Meanwhile, the good news for India continues. The Reserve Bank of India and Standard and Poor's have also retained India's FY22 growth projections at 9.5 per cent. Then there is the continuing export boom, along with the surge in tax revenue and falling inflation. The shrinking pile of bad debt burdening the banking system is another bright spot. Let's not forget the booming corporate profits, the optimistic industrial production numbers, and the continuing surge in the tally of unicorns. There are also government programmes like Gati Shakti and asset monetisation, which are expected to generate some momentum. But, there still are some doubts over whether rapid growth can be sustained in the medium term.

Here's what we could do.

CONDITIONS FOR HIGHER GROWTH

- Boost consumption demand
- Boost investment demand
- Private sector is constrained at present
- Govt. needs to play critical role in boosting investment
- > States also need to increase investments

NECESSARY FOR MEDIUM-TERM GROWTH

- > How well Centre invests in coming months
- > How states manage to use their savings

If the projections for FY22 and FY23 come true, India will once again get to taste the high growth rates of the 2000s. However, a lot needs to be done if that pace is to be sustained going forward.

(Business Standard - 21/10/2021)

SEP-21 TRADE DEFICIT WIDENS TO RECORD \$22.6 BILLION



The good news is that the exports have shown a distinct upward shift when compared with pre-COVID exports in the corresponding period in 2019. However, this does not mask the fact that trade deficit sharply widened in Sep-21 from \$13.81 billion to \$22.60 billion.

The month of Sep-21 marked the seventh consecutive month in which merchandise exports remained above \$30 billion. However, it looks like the total merchandise exports are now stuck in a narrow range of \$30-35 billion over last 7 months. During the same period, imports have gone up sharply resulting in record merchandise trade deficit. It is easy to get misled by the yoy export growth as 2020 was an exceptionally weak year. The good news is that the exports have shown a distinct upward shift when compared with pre-COVID exports in the corresponding period in 2019. However, this does not mask the fact that trade deficit sharply widened in Sep-21 from \$13.81 billion to \$22.60 billion.

The total trade (aggregate of exports and imports) is a good indicator of MSME orders, government revenues and job creation. For the first time, the total trade crossed \$90 billion in the month, although steeply higher imports played an inordinately significant role in this jump. For the first 9 months of 2021, India reported record trade deficit with China, which drives 40% of India's trade deficit.



On sequential basis, exports were up 1.53% while the imports were up by a whopping 19.75%. If you compare with pre-COVID levels of September 2019, merchandise exports are up by 29.86% while merchandise imports are up by 49.59%. The bias towards import intensity is the big shift in Sep-21.

Sep-21 exports were steady, but big push seems missing

Exports at \$33.79 billion in Sep-21 were up 22.63% yoy. This growth can be considered to be optical as Sep-20 was still





facing the lag effect of COVID-19 pandemic. However, sequential export growth was fairly subdued at 1.53%. The growth over 2019 indicates that exports are well above pre-COVID levels. Let us look at the star export performers.

There were several star export performers in Sep-21. Exports of Coffee (+62.55%), Cashew (+49.4%), Petroleum Products (+47.91%), Cotton Yarn (+40.5%), Engineering Goods (+36.83%), Chemicals (+29.65%), Man-made fabrics (+26.49%), Electronic Goods (+26.33%), Cereals (+21.18%) and Fruits & Vegetables (+21.13%) were the big growth stories. There were some export laggards too like Iron Ore (-72.77%), Oil Meals (-39.05%), Oil Seeds (-26.77%), Tobacco Products (-16.31%) and Ceramic Products (-14.15%). Non petroleum and non-jewellery exports in Sep-21 stood at \$25.34 billion against \$21.33 billion in Sep-20. Cumulative value of exports for Apr-Sep period was up 57.53% at \$197.89 bn.

Import surge in Sep-21 driven by crude prices and gold imports

Merchandise imports for Sep-21 stood at \$56.39 billion, up 84.77% yoy. Imports were up 19.75% sequentially. Crude oil imports at \$17.44 billion in Aug-21 were higher by 199.27% yoy. Crude oil bill is higher by \$5.79 billion on sequential basis, indicating that rising price of Brent Crude was putting real pressure on trade numbers. The major commodity that showed lower imports on a yoy basis for Sep-21 was (-47.30%) for Project Gods. Cumulative value of imports for Apr-Sep stood at \$276.02 billion.

Overall deficit for FY22 widens sharply in Sep-21

For FY22 (Apr-Sep), combined deficit of merchandise and services trade was \$(-28.63) billion. The sharply higher merchandise trade deficit, widened the overall deficit by \$11.37 billion from \$(-17.26) billion to \$(-28.63) billion.

India ended FY21 with net overall deficit of -\$12.75 billion. For FY22 (Apr-Sep), India reported overall deficit of \$(-28.63) billion. If you statistically extrapolate this trend for coming months, the overall deficit could widen to about 5 times the FY21 levels. That is likely to put a lot of pressure on the current account in FY22.

Particulars	Exports FY22 (\$ bn)	Imports FY22 (\$ bn)	Surplus / Deficit (\$ bn)			
Merchandise trade	AND ADDRESS OF THE PARTY OF THE	\$ 276.02 bn	\$ (-78.13) bn			
Services Trade #	\$ 114.58 bn	\$ <mark>65.08 bn</mark>	\$ (+49.50) bn			
Overall Trade	\$ 312.47 bn	\$ 341.10 bn	\$ (-28.63) bn			

Data Source: DGFT (# - DGFT estimates due to 1-month lag in RBI reporting)

India must worry about gold imports and China trade deficit

Last month we had reported about the decisive growth in exports and imports over the 2019 pre-COVID period. That trend has sustained even in the current month. However, there are three areas to worry about.

- Gold imports were the bane in Sep-21. Total gold imports stood at \$5.1 billion in Sep-21, emerging as the third largest item of imports in value terms. That is a lot of precious forex spent on an unproductive asset like gold.
- China is driving the overall trade deficit and driving it hard. Out of the total trade deficit of \$119 billion for Jan-Sep 2021, China accounted for \$47 billion or 40% of the entire trade deficit. That is hardly a comforting thought.
- Lastly, services exports are providing stability but the gap between the services surplus and the merchandise trade deficit has been consistently widening.

Import bill is likely to remain elevated as capital exports are rising as is the price of crude. The big areas of focus must be boosting exports. That is the only answer to the trade puzzle!

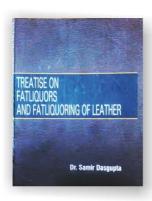
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-: JILTA:-

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ILTA PUBLICATION

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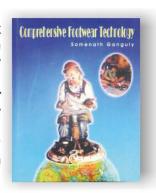
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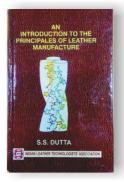
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Send your enquiries to:

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History and Activities of Indian Leather Technologists' Association

The Indian Leether Technologiste' Association (ILTA) was founded by Late Prof. B. M. Das, the originator of Das-Stiaunay theory and father of Indian Leather Science on 14th August 1950.

The primary objectives of the oldest Leather Technologists' Association which ce

- To bring all concerned with the broad spectrum of the leather inclusity under one umbralle. To organize seminar, symposium, workshop in order to create information, knowledge and latest development for the benefit of all concerned. To differ a common platform for all to interact with each offer in order to understand section of problems and prospects.

 To publish monthly journal as a supplement to those above objectives. The monthly journal of ILTA is forown as journal of ILTA is shown as journal of I

- of India's Learner I continuous as construction and to a set interest and india's Learner I continuous.

 To publish text books for the bonefit of students at various levels of study, for the researchers and Industry.

 To have interface between unben and rural sector.

 To assist Planning Commission, various Government Institutions, Ministry and autonomous bodies to leapproprists policities acceptable end adoptable to the industry.

 To organize practical training and to provide skilled mampower and to motivate good students for study.

 To conduct activities related to this growth of the export of leather and leather goods from India.

 As the part of many accels activities IITA has donated Pia. I lac to Consul General of Nepel Invards relief of earlief coted of Nepel on 15° Sept, 2016.

- ILTA is the Member Society of Internetional Union of Leather Technologists & Chemists Societies (IULTCS), a 115 years old organization and for the first time the IULTCS Congress was organized in Jenuary 1999 outside the developed countries in India Johnthy by ILTA and CLRI.
 2017 IULTCS Congress is scheduled to be held in India again.
 §° Asian International Conference on Leather Science & Technology (AICLST) was organized by ILTA in 2010 during its Diamond Jubiles Celebration year.

SEMINAR & SYMPOSIUM

- Prof. B. M. Das Memorial Lecture every year during the Foundation Day Celebrations on 14° August every year. Sanjoy Sen Memorial Lecture on 14° January every year, the birthday of our late President for several decades. Prof. Mont Benerjee Memorial Lecture on 15° Merch every year, the birthday of this loon to personality. Seminar on the occasion of India International Leather Felf (ILIP) at Chennal in February every year.

- so organized:

 Porf. Y. Nisyudumma Memorial Lecture.

 Beries of Lactures during "Programme on implementing Emerging & Sustainable Technologies (PrIEST)".

 Seminars in occasion of India. International Leather Felr, 2014 and 2015 at Chennal etc. Marry reputed scientists, industrialists and sducetionists have delivered these prestigious fectures. Foreign dignitaries during their visits to India have addressed the members of ILTA at various times.

PUBLICATION

ILTA/have published the following books:

An Introduction to the Principles of Physical Testing of Leather by Prof. S. S. Dutta
Practical Aspects of Marufacture of Upper Leather by J. M. Dey
An Introduction to the Principles of Leather Manufacture by Prof. S. S. dutta
Analytical Chamstery of Leather Manufacture by F. K. Barker
Comprehensive Footwess Technology by Mr. Somnath Ganguly
Treatise on Faltiquos and Faltiquoring of Leather by Dr. Samir Desgupta
Syntholic Tanning Agunta by Dr. Samir Desgupta
Hadi Soko fit Tenning Sy Prof. B. M. Des
LITA/has a good Library & Anchive enriched with a few Important Books, Periodicals, Journale etc.



AWARDS OF EXCELLENCE

ILTA awards Prof. B. M. Das Memorial, Sanjoy San Memorial, J. M. Day Memorial and Moni Banarjae Memorial Medala to the top rankers at the University / Tschnical Institute graduate and post graduate levels to encourage the brilliants to evolve with the India
 J. Sinha Roy Memorial Award for the author of the best contribution for the entire year published in the monthly journal of the Indian Leather Technologists' Association (JILTA).

To promote and provide marketing facilities, to keep pace with the latest design and technology, to have better interaction with the domestic buyers, ILTA has been organizing LEXPO fains at Kolvata from 1977, Sliguri from 1992 and Durgapur from 2010. To help the tiny, cottage and small-scale sectors industries in marketing, LEXPO fains give the exposure for their products. Apart from Kolkata, Sliguri & Durgapur, ILTA has organized LEXPO at Bhubaneevar, Gangtok, Guwahati, Jamehedpur and Ranchi.

The Association's present (as on 31.03.2018) strength of members is more than 600 from all over India and abroad. Primarily the members are leather technologists passed out from Govt. College of Engineering & Leather Technology, Anna University, Chennal, Harcourt Butter Technological Institute, Karpur, B. R. Ambedian National Institute of Technology, Jelandher and Scientists from Central Leather Research Institute.

ESTABLISHMENTS

in order to strengthen its activities, ILTA have constructed its own six storied building at 44, Shanti Pally, Kaaba, Kolketa – 700 107 and have named it "Sanjoy Bhavan".
This Association is managed by an Executive Committee duity elected by the members of the Association. It is absociation is managed by an Executive Committee duity elected by the members gets any remuneration for the services rendered but they get the settlesteron or being a part of this extense render organization.



Indian Leather Technologists' Association

[A Member Society of International Union of Leather Technologists' and Chemists Societies]

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