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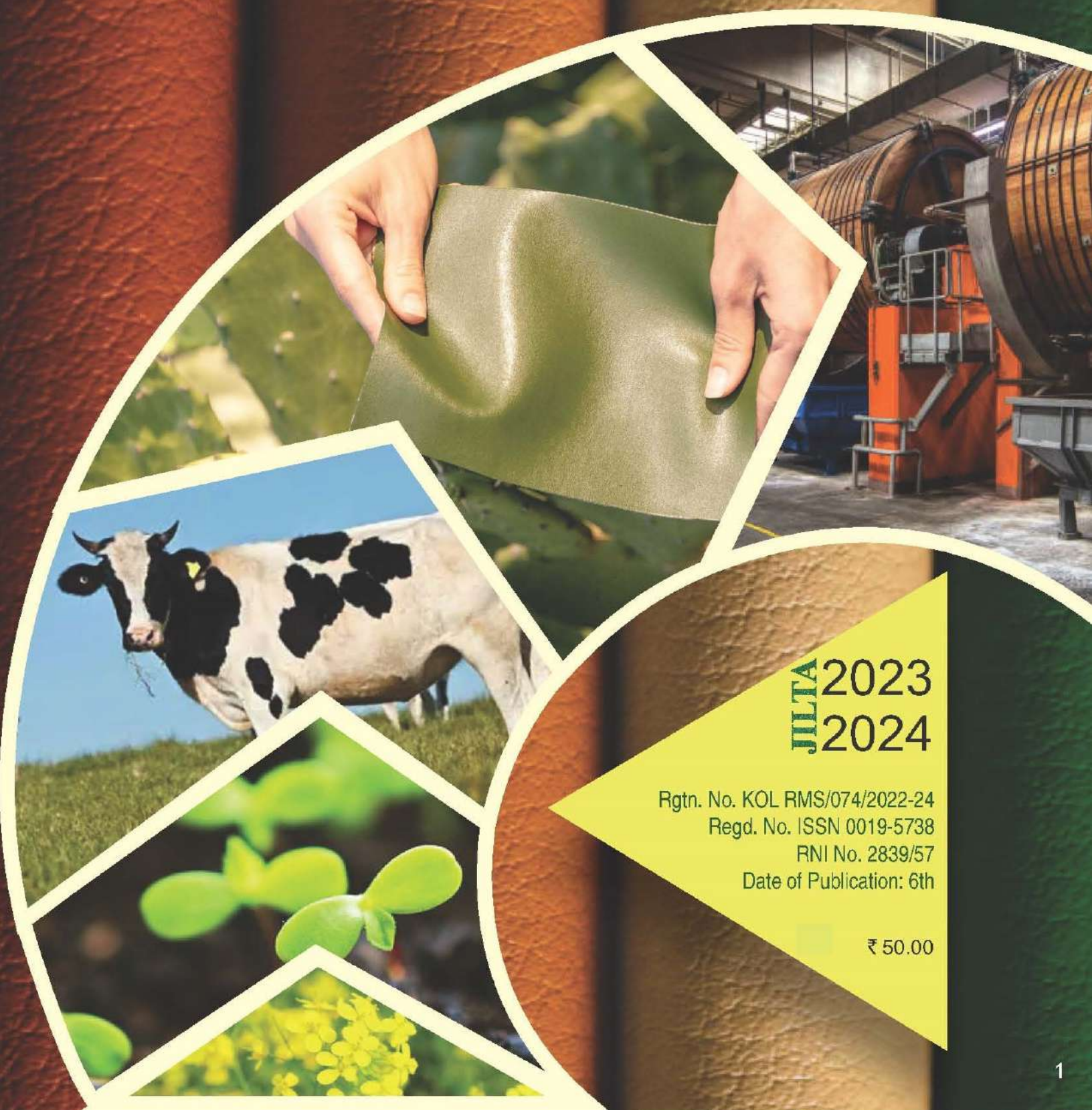
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Synopsis of Objectives

- An Association with over 550 members from India and abroad working since last 72 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 72 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]

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JOURNAL OF INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION (JILTA)

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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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Alternate Thought of Sub-Soil Carbon Capture



One possible way of dealing with coal's globe-warming effect is to capture the CO₂ from coal exhaust and bury it deep underground in a process known as **carbon capture and sequestration**, or CCS. Opponents of the idea have argued, however, that among other potential dangers, CCS could trigger earthquakes. It is one of the most ambitious parts of the planned battle against climate change – technologies to 'bury' carbon dioxide (CO₂) deep underground and scientists have investigated how it works in reality, using depleted hydrocarbon reservoirs where CO₂ has been injected as part of the oil recovery process.

Carbon capture and storage (CCS) is one of the new technologies that scientists hope will play an important role in tackling the climate crisis. It involves the capture of CO₂ from the burning of fossil fuels in power generation, which is then stored underground in geological formations. The UK government recently selected four sites to develop multi-billion-pound CCS projects as part of its scheme to cut from heavy industry 20 to 30 million tonnes of CO₂ per year by 2030. Other countries have made similar carbon reduction commitments. CO₂ has historically been injected into numerous depleted hydrocarbon reservoirs as a means of enhanced oil recovery (CO₂-EOR). Dr Rebecca Tyne, of the Department of Earth Sciences at Oxford University, said: "CCS will be a key tool in our battle to avert climate change. Understanding how CCS works in practice, in addition to computer modelling and lab-based experiments, is essential to provide confidence in safe and secure CO₂ geological sequestration." In a paper published in the journal *Nature*, Dr Tyne and Professor Chris Ballentine, also from Oxford University, led a team of international collaborators to investigate the behaviour of CO₂ within a CO₂-EOR flooded oil field in Louisiana. Data suggested that up to 74% of CO₂ left behind by CO₂-EOR was dissolved in the groundwater. The study also revealed that microbes converted as much as 13 to 19% of the injected CO₂ to methane, which is a stronger greenhouse

gas than CO₂. Professor Ballentine said: "Methane is less soluble, less compressible and less reactive than CO₂, so, if produced, it reduces the amount of CO₂ we can safely inject into these sites. "However, now this process has been identified, we can take it into account in future CCS site selection."

Carbon capture and sequestration could work alongside technologies that can capture CO₂ directly from the air. These can work with up to 97% efficiency, another study has found. Researchers at the Paul Scherrer Institute PSI and ETH Zurich, both in Switzerland, investigated different technologies to remove CO₂ directly from the air. However, they cautioned that such technology would not remove the need to cut carbon emissions, but would instead work alongside carbon reduction to help countries hit their climate goals. The researchers analysed five different ways to capture CO₂ from the air at eight different locations around the world. "The technologies for CO₂ capture are merely complementary to an overall decarbonisation strategy – that is, for the reduction of CO₂ emissions – and cannot replace it," said Christian Bauer, a scientist at PSI's Laboratory for Energy Systems Analysis and a co-author of the study. "However, they can be helpful in achieving the goals defined in the Paris Agreement on climate change, because certain emissions, for example from agriculture, cannot be avoided."

Coal is the most abundant and cheapest fossil fuel on the planet, but it is also the dirtiest in terms of how much heat-trapping carbon dioxide (CO₂) it spews into the atmosphere when you burn it. One possible way of dealing with coal's globe-warming effect is to capture the CO₂ from coal exhaust and bury it deep underground in a process known as carbon capture and sequestration, or CCS. Opponents of the idea have argued, however, that among other potential dangers, CCS could trigger earthquake and for years, proponents have said, "tell us something we didn't know." Geologists have been aware since

the 1960's that pumping liquids and gases into underground rock formations can trigger earthquakes by adding just a little extra pressure to existing faults in a sort of straw-that-broke-the-camel's-back effect. In 2011 alone, subsurface injection of wastewater from mining operations was blamed or suspected in quakes that shook Arkansas, Colorado, Ohio and Oklahoma. But they were small earthquakes, causing minimal damage and no injuries at all, and if that's the worst consequence of keeping a lid on global temperatures, it might well be worth it or maybe not.

In a new analysis published last week in Proceedings of the National Academy of Sciences, Mark Zoback and Steven Gorelick of Stanford University point out that in order to be effective, CCS projects need to keep CO₂ out of the atmosphere for thousands of years — and that earthquakes too small to endanger life or property could nevertheless create leaks that would make the whole thing a waste of time. The bottom line, according to Zoback: "CCS is a risky proposition. Not that it's impossible, or even inappropriate. It should be done. But at a global scale, it's not likely to reduce CO₂ emissions significantly." Zoback and Gorelick base their analysis on a phenomenon called "critically stressed crust," a consequence of plate tectonics. In places where vast, continent-sized plates of crustal rock attempt to slide past each other (as in California) or where one plate dives under another (as in Japan), the movement proceeds in fits and starts, with long periods of no motion at all as the stress gradually builds, and then the sudden jerk of a major earthquake.

In the interiors of continents, by contrast, far from a plate's edge, the stress is more or less constant, and it is usually relieved in less dramatic fashion through myriad small earthquakes, like the 5.9 – magnitude quake that hit Virginia last summer. (They are not always small, though, as the massive quakes near New Madrid, Missouri in the early 1800's and a killer quake in Tangshan, China, in 1976, make clear and the present one in Turkey). Because of this constant stress, any significant extra underground pressure could push a fault that was on the verge of rupturing. "Obviously," Zoback explained in an interview, "any faults of significant scale would be avoided in choosing a location for CCS." But it is the fault of insignificant scale, which might easily be missed in geologic surveys, which worry him and Gorelick. If one of these were to slip, it could create cracks in the overlying cap rock that give the CO₂ a

pathway back to the surface and unlike wastewater, said Zoback, "supercritical CO₂ [the liquid form of CO₂ that would be injected underground] is relatively light, and wants to rise." While plenty of places would be unsuitable for CCS according to this analysis – there are two situations where Zoback and Gorelick suggest it would not be a problem. One is in an oil or gas field where the fossil fuels have largely been extracted already. "Since you are lowering the pressure during extraction," said Zoback, "there is little danger in raising it again by pumping in CO₂, as long as you do not go above the initial pressure." The other is in places where the underground rock (but not the cap rock) is friable, or easily cracked. That's the case under the North Sea, where CO₂ captured in natural-gas extraction has been injected into the Sleipner Field since 1996, without incident.

Unfortunately, safe locations like these are not distributed evenly around the globe. For the U.S., the best storage locations by these criteria are most likely in the Gulf of Mexico, Zoback said. If you have got a refinery on the Gulf Coast, he said, and if you can separate the CO₂ and inject it underground locally, there's no doubt that it's a viable idea. But much of the CO₂ generated in the U.S. comes from other parts of the country. "Can you ship all of that south to the Gulf?" he asked. "It raises substantial questions." Again, Zoback stressed, neither he nor Gorelick is arguing that CCS is necessarily a bad idea — only that it might be a bad idea on the grand scale it would take to make a major dent in global warming. "We want to start a dialogue about this. As climate modelers go forward, this is something they need to think about.

Presently, Denmark is all set to become the first nation in the world to bury CO₂ imported from abroad as it has launched a project on Wednesday to store carbon dioxide 1,800 metres beneath the North Sea. The CO₂ will be injected on the site of an exhaustive oil field. Led by British chemical firm Ineos and German oil major Wintershall Dea, the "Greensand" project is projected to store up to eight million tonnes of CO₂ per year by 2030. Project Greensand works to ensure that Denmark can use the storage of CO₂ as part of the solution to climate challenges. The project has 23 Danish and international partners who contribute expertise from transport, storage and monitoring of CO₂ in the underground. The members include Danish and international companies, research institutes, universities and start-ups. The project aspires to do a green

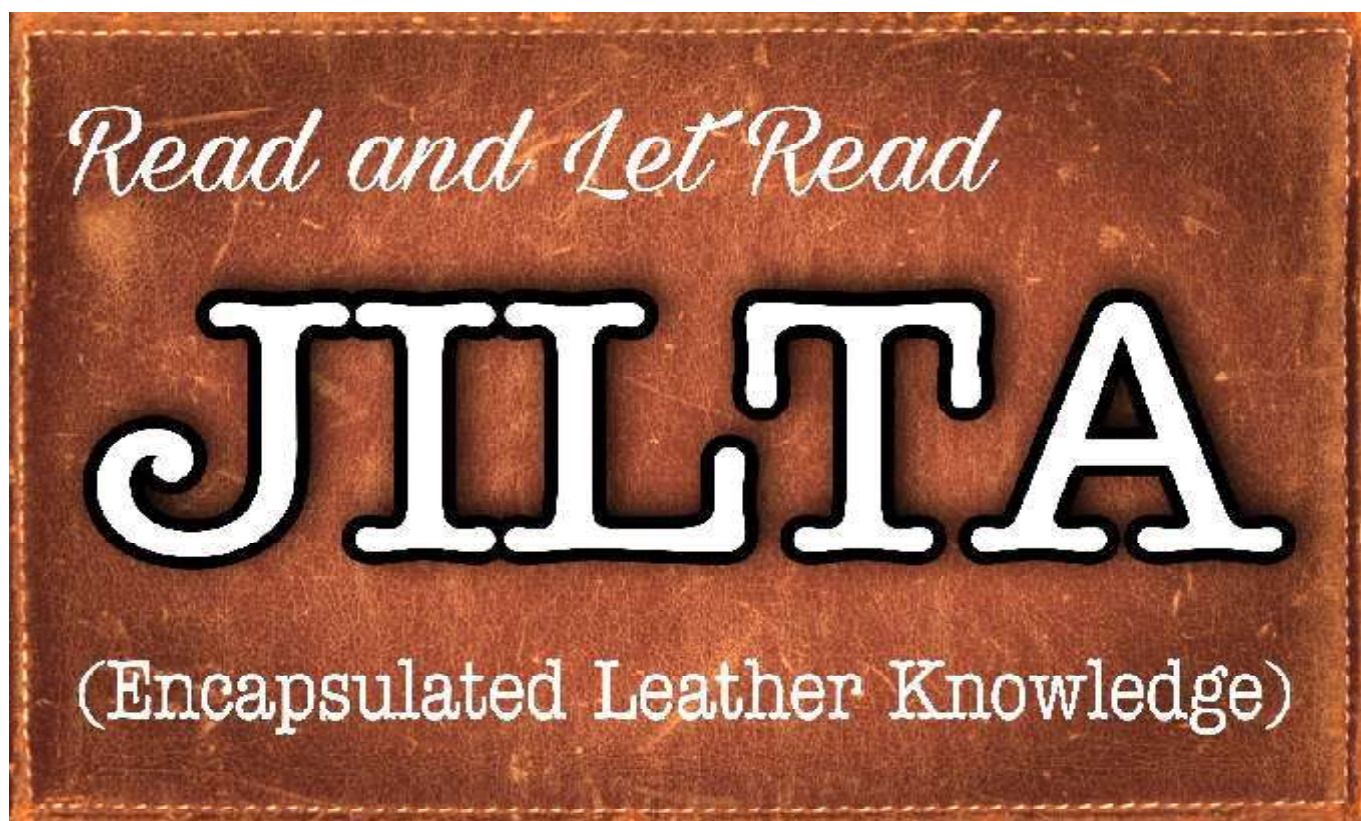
transformation. Solar cell systems are being installed, offshore wind farms are being built, and the nations is also replacing petrol and diesel cars with electric cars. But even if all these steps are in the right direction, Denmark said it is not enough if one is to solve the climate challenges and achieve the objectives of the Paris Agreement.

“We must also capture CO₂ from the emitters and store it,” the project website said adding, the UN’s climate panel points to the capture and storage of CO₂ as an effective tool to quickly reduce CO₂ emissions. Project Greensand is the most mature project for storing CO₂ in Denmark, with the possibility of storing up to 1.5 million tonnes of CO₂ per year in 2025/2026 and up to 8 million tonnes of CO₂ per year in 2030. The project is currently in the pilot phase, which is called phase 2. This is where the project is developed and demonstrated. CO₂ to be stored in the North Sea will be shipped from Antwerp in Belgium to the Nini platform in the North Sea. It is liquefied and transported by ship or pipelines, and then stored in reservoirs like geological cavities or exhausted oil and gas fields.

The final destination of CO₂ is in a reservoir 1,800 meters below the seabed, where it is permanently stored. Geological and production data have been collected on the Nini field for more than 20 years. This means that the leading partners INEOS and Wintershall Dea know the underground structures extremely well, the project website added.

“..I am extremely pleased that the whole perspective on the Danish subsoil from day one is based on an industrial thinking where this resources should be brought to the market and help other countries meet their climate target on a commercial basis,” says Mr. L. Aagaard, Project Head.

Goutam Mukherjee
Dr. Goutam Mukherjee
Hony. Editor, JILTA





ILTA
Since 1950

International Leather Fraternity 72 years of service to the

Tell me and I forget, teach
me and I may remember,
involve me and I learn

Stahl Campus[®]



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.





Stahl

We imagine sustainable pickle-free leather tanning

If it can be imagined,
it can be created.

Tanners benefit from higher process efficiency, reduced water, chemical and salt consumption and a reduced environmental impact. This makes it possible for tanners to have an efficient process that is also sustainable and yields ecofriendly premium leathers.

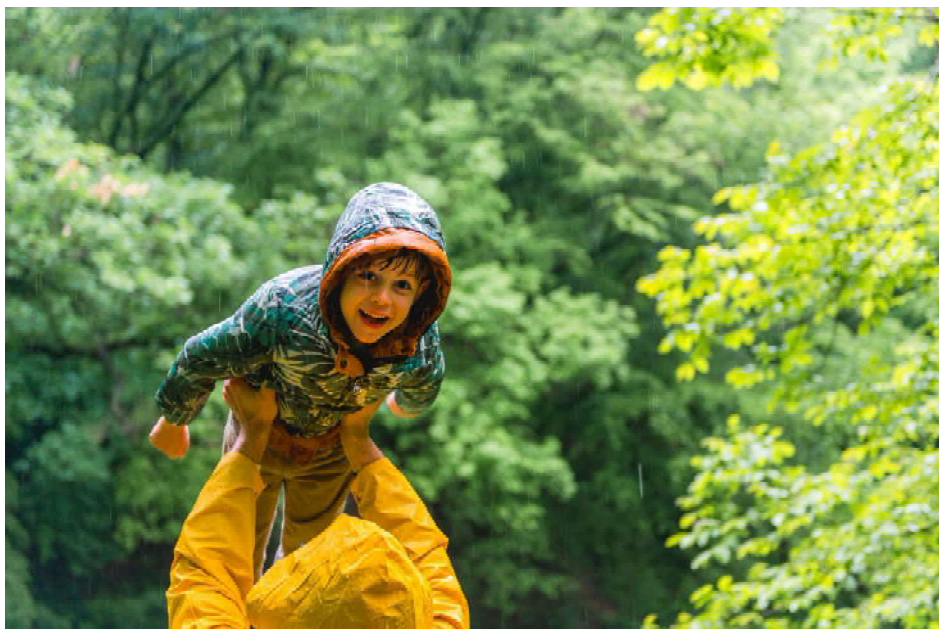
High-quality leather no longer forces a choice between responsible processes and efficiency. The main benefits of a pickle-free system that avoids salt addition during pickling are:

- Reduction of water consumption by up to 40%
- Shorter process time on cow, sheep and goat
- Cleaner effluent, TDS reduction by up to 60%

STAHL OUTLINES PROGRESS ON ENVIRONMENTAL, SOCIAL, GOVERNANCE AMBITIONS IN 2022 ESG REPORT

Stahl, a leading provider of coating technologies, has published its 2022 Environmental, Social, and Governance (ESG) Report. The report, which shares its title with Stahl's new purpose –Touching lives, for a better world– details the company's recent progress against its mid-term ESG 2030 targets and broader ESG ambitions. The report is available to view as a fully digital version.

Stahl's 2022 ESG Report is the 10th edition of the publication, which aims to provide stakeholders with a clear understanding of the



company's ESG strategy, goals, and activities. In 2022, Stahl took steps to strengthen its non-financial reporting, including preliminary efforts to address the requirements of the Corporate Sustainability Reporting Directive (CSRD), a forthcoming EU regulation. Stahl has established a project team to gain a better understanding of double materiality, governance elements, and other ESG disclosures related to the CSRD.

Demonstrable progress against Stahl's ESG targets

A key focus of the report is Stahl's ESG Roadmap to 2030, a list of ESG-related commitments and targets aligned with the UN Sustainable Development Goals (SDGs). The roadmap uses metrics to track Stahl's progress against its targets, which are based on a set of clearly defined environmental, social, and governance topics.

These targets include reducing greenhouse gas (GHG) emissions. In 2022, the CO₂e intensity of Stahl's Scope 1 and Scope 2 GHG emissions fell by 3%. This followed a decrease of more than 30% in the company's Scope 1 and 2 emissions in absolute terms between 2015 and 2020. During the year, Stahl also submitted a new Scope 3 target to the Science Based Targets initiative (SBTi), with the aim of reducing its upstream emissions by at least 25% by 2030 (2021 baseline). Scope 3 GHG emissions cover all the additional indirect emissions that may occur in the value chain, including those associated with purchased raw materials, packaging, business travel, logistics and transportation, and dealing with end-of-life products. Stahl's Scope 3 emissions currently represent over 90% of its carbon footprint.

EcoVadis Platinum rating

In 2022, Stahl received an EcoVadis Platinum rating, placing it in the top 1% of companies assessed by the globally renowned EcoVadis sustainability rating platform. By achieving the highest possible rating, Stahl has surpassed its ESG Roadmap goal of achieving a Gold rating by 2023. Stahl's commitment to the EcoVadis process also extends to its supply chain. 83% of the company's raw material spend came from EcoVadis-rated suppliers, and Stahl aims to ensure that all EcoVadis-rated suppliers in its network achieve a minimum rating of 47/100 by 2030.

Safe and supportive work environment

Stahl's 2022 ESG report also details the company's efforts to support the physical and mental well-being of its employees, forming a core pillar of its ESG approach. For instance, Stahl's Roadmap to 2030 includes a target to have all Stahl manufacturing sites ISO 45001-certified¹ by 2030 (59% of Stahl's products were produced at ISO 45001-certified sites in 2022).

In addition, Stahl has taken steps to increase employee engagement and strengthen its diversity, equity, and inclusion (DEI) culture and vision. This has included defining and implementing local DEI plans in each of Stahl's legal entities worldwide and appointing local DEI committees for each entity. As part of this effort, Stahl is committed to improving gender equality and the representation of women throughout the organization. To this end, it has set a target to achieve 30-60% female representation across the company's Leadership Team, Extended Leadership Team, and heads of function.

Maarten Heijbroek, CEO of Stahl: "2022 was my first full year as CEO, and I am proud to say that it was a year of progress, as we continued to build momentum toward the goals set out in our ESG Roadmap to 2030. It was a year of significant milestones, including the announcement of our new Scope 3 greenhouse gas emissions target and our EcoVadis Platinum rating, to name a few. While we still have a long way to go to become the responsible organization we aspire to be, each year we touch more lives, as we work with our partners to create a better world."

(Stahl News – 22/03/2023)

STAHL COMPLETES ACQUISITION OF ICP INDUSTRIAL SOLUTIONS GROUP

Stahl, a provider of coatings technologies headquartered in the Netherlands, has completed the acquisition of ICP Industrial Solutions Group (ISG), a leader in high-performance coatings for packaging and labeling applications. The acquisition reinforces Stahl's position as the global leader in the field of specialty coatings for flexible substrates.

ICP Industrial offers a comprehensive portfolio of high-performance coatings used primarily in packaging and labeling applications, notably in the food and pharmaceutical sectors. ICP



Industrial is primarily active in North America (close to 70% of sales), where it is a recognized technical leader. It also operates in Europe, under the "Hi-Tech Coatings" brand name.

In addition to enhancing Stahl's product offering and manufacturing capabilities, the acquisition stands to strengthen the company's environmental, social, and governance (ESG) leadership position. The integration of ICP Industrial coating technologies (water-based and energy-cured^[1]) will enable Stahl to support customers in their transition to more sustainable packaging. With ICP Industrial reporting sales of approximately USD 140 million in 2022, the acquisition will bring Stahl's annual sales beyond the EUR 1 billion mark, with an EBITDA margin above 20%.

Maarten Heijbroek, CEO of Stahl: *"Completing this important strategic acquisition is an important milestone for our organization. Stahl and ICP Industrial's product focus and technologies are highly complementary, and the acquisition will enhance our growth profile, diversify our target markets, and broaden our technology base. Moreover, integrating ICP Industrial's expertise and range of innovative low-impact solutions into our portfolio will add further value to our stakeholders as we work to create a more sustainable coatings value chain."*

(Stahl News – 16/03/2023)

BEAUTIFUL SCRATCH-RESISTANT MATTE COATINGS WITH POLYMATTE® FOR SYNTHETICS AND LEATHER

With matte coatings trending hard, product, fashion and interior designers need to be confident that the matting agents they choose to create a luxurious appearance will stay looking wonderful for a long time. Stahl PolyMatte® scratch-resistant coating prevents scuffing and polishing to extend the lifespan of matte sofas, matte car, boat and airplane interiors, matte accessories and matte interior surfaces. Our industry is always pushing for more – more performance, easier application, better environmental footprint – and PolyMatte® checks all the boxes.



Full matting solution for long-lasting finishes

PolyMatte® is a proprietary Stahl polyurethane dispersion technology that works with water-based, custom-made coatings that meet the most stringent requirements in terms of aesthetics, performance and sustainability. PolyMatte® forms a smooth, matte surface structure during the film forming and drying stage so that no fillers are needed. Being a polyurethane, PolyMatte® makes every article feel more luxurious, while its flexibility and scratch and abrasion resistance ensures it maintains its character for longer. Stahl PolyMatte® is a wide-ranging product line that exceeds other matting agent technologies. Stahl PolyMatte® comprises a wide portfolio of top coats and duller concentrates.

Choice of bio-based matting for leather

Stahl promotes environmentally responsible practices. Because of this, we have begun using natural and renewable resources in the development of new finishing technologies. Our bio-based PolyMatte®, developed for leather finishing, is made with rapeseed oil instead of crude oil intermediates. So it's better for the environment. And the solid part of the rapeseed becomes animal feed or fertilizer as it contains fiber, carbohydrates and proteins. The result is a bio-based technology with no waste.

Key benefits of PolyMatte® matte coating technology

Our PolyMatte® portfolio, including Bio-based PolyMatte®, is resistant to solvents, oil, UV, oxidation, scratches, high temperature and hydrolysis. With PolyMatte®, we can help you ensure the durability of your products with no esthetic compromises, and the choice to improve your environmental footprint. Perfect for tomorrow's iconic products.

- A film forming matting agent
- Low- to extreme-low gloss (<1% at 60° angle)
- Long-lasting with a pleasant feel
- Durable, non-porous surface
- Damage and scratch resistant
- No squeaking
- Low-VOC

(Source: www.stahl.com/portfolios/polymatte)

RESPONSIBLE CHEMISTRY INVOLVES RETHINKING PRIORITIES

Stahl's road to responsible chemistry started in 1978 with the launch of our first water-based leather finishing product. Since then, and over the last 20 years in particular, we have defined Responsible Chemistry and ushered it into our industry. Using our expertise to improve the performance of existing materials and productionize breakout ones, like fruit textiles, for example, that are even more sustainable. But we recognize there are more opportunities to do more. And that starts with our supply chain and the journey our products undergo from raw material to end of life.



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Our vision on responsible chemistry

As a company, we are actively trying to replace petrochemicals with renewable resources. But our road to responsible chemistry doesn't end there. From a sustainability viewpoint, it is equally important to look at what happens when the products we help to make reach the end of their respective roads. We focus on three priorities to improve our environmental footprint and that of our customers:

1. Using low-impact manufacturing chemicals
2. Using biotechnology to replace non-renewable resources
3. Using waste and recycled content contributing to circularity

Using the Life Cycle Assessment methodology, we measure the impact of a product on the environment over the course of its life.

(Source: <https://www.stahl.com/responsible-chemistry/vision>)



From the desk of General Secretary



The 12th Prof. Moni Banerjee Memorial Lecture was organized by our association on Wednesday the 15th March, 2023 at 03.00 PM (Registration started from 02.30 PM) in the Seminar Hall – 19A of The Science City, J B S Haldane Avenue, Kolkata, West Bengal.



After welcoming everybody and paying homage to Late Prof. Moni Banerjee, Mr. Susanta Mallick, General Secretary, ILTA, invited the following to offer tribute by garlanding on the portrait of Late Prof. Moni Banerjee.

1. Mr. Arnab Kumar Jha, President, ILTA
2. Mr. N. Viswanathan, Hon'ble Speaker of the day
3. Mrs. Maitreyee Chatterjee, daughter of Late Prof. Moni Banerjee
4. Mr. Gopal Chatterjee, Son-in-Law of Late Prof. Moni Banerjee
5. Mr. Swapan Kumar Basu, senior member of ILTA
6. Mr. Satish Murli, Representative from CLRI
7. Mr. B. C. Jana, Jt. Secretary of ILTA
8. Mr. Tarak Saha, Member of ILTA
9. Mr. Ramesh Chandra Sahoo, from FDDI
10. A Members of Alumni Association of GCELT
11. A Students from CFTC, Budge Budge
12. A Student from CFTI, Agra

After garlanding session was over, Mr. Arnab Kumar Jha & Mr. N. Viswanathan, were requested to take their seats on the dais and Mr. Jha was requested to deliver his Welcome Address in which, Mr. Jha briefly recalled the life history and achievements of Late Prof. Moni Banerjee.

Mr. Mallick thereafter requested Mr. Asit Baran Kanungo, Vice President, ILTA to greet Mr. N. Viswanathan, the Speaker of the day with a flower bouquet.



Names of the recipients of Moni Banerjee Memorial Medals thereafter declared and medals & certificates were handed over to them as stated below: -

- 1) Ms. Nikita Gajanan Virolkar, Topper, Diploma in Footwear Manufacture & Designer Course Examination, 2022, Central Footwear Training Institute, Agra, U.P. received the medal & certificate from Mr. Arnab Kumar Jha.
- 2) Mr. Kolluri Madhu, Topper, Diploma in Footwear Technology Examination, 2022, Govt. Institute of Leather Technology, Hyderabad was unable to attend. His Medal & Certificate would be sent through courier/post.
- 3) Mr. M. M. Reddy, Topper, Diploma in Leather Technology Examination, 2022, Govt. Institute of Leather Technology, Hyderabad was unable to attend. His Medal & Certificate would be sent through courier/post.
- 4) Ms. Snigdha Sultana, Topper, B. Des. in Footwear Technology Examination, 2022, Footwear Design & Development Institute, Kolkata Campus, received the Medal & Certificate from Mr. N. Viswanathan.
- 5) Ms. Indira Pal, Topper, B. Des. in Leather Goods Examination, 2022, Footwear Design & Development Institute, Kolkata Campus, received the Medal & Certificate from Mr. Arnab Kumar Jha.
- 6) Miss Jahnavi Kumari Jha, Topper, B. Des. in Fashion Designing Examination, 2022, Footwear Design & Development Institute, Kolkata Campus, was unable to attend. On her behalf, Mr. Ramesh Chandra Sahoo, Sr. Faculty & HOD, Footwear Dept., FDDI, received the Medal & Certificate from Mr. Arnab Kumar Jha.
- 7) Ms. Aohona Mondal, Topper, Diploma in Footwear Technology Examination, 2022, Central Footwear Training Centre, Budge Budge, West Bengal, received the Medal & Certificate from Mr. N. Viswanathan.
- 8) Mr. Indranil Sadhukhan, Topper, Diploma in Leather Goods Technology Examination, 2022, Central Footwear Training Centre, Budge Budge, West Bengal, received the Medal & Certificate from Mr. Arnab Kumar Jha.
- 9) This year onwards a Scholarship in the name of Prof. Moni Banerjee has been introduced. A selection committee consisting of three members namely

Prof. (Dr.) Sanjoy Chakraborty, Principal, GCELT, Mr. Gopal Chatterjee, Son-In-Law of Prof. Moni Banerjee and Mr. Susanta Mallick, General Secretary, ILTA was formed for the purpose.

Mr. Avijit Roy, Student of B.Tech., Leather Technology stream of Govt. College of Engineering & Leather Technology, Kolkata, was nominated as the recipient the Prof. Moni Banerjee Scholarship, 2022-23. He received the award from Dr. Chandana Banerjee (Sarkar) & Mrs. Maitreyee Chatterjee.



Mr. Jha then introduced Mr. N. Viswanathan to the gathering and requested him to deliver the 12th Prof. Moni Banerjee Memorial Lecture titled **“Acrylic Emulsion Polymers: Science, Challenges and Future Perspective”**. On conclusion of the lecture, Mr. Viswanathan was presented a Memento, Citation and a Gift by Mr. Susanta Mallick & Mr. Arnab Kumar Jha.

Mr. Susanta Mallick then proposed the Vote of Thanks to the Speaker, Members, Faculties and Students of GCELT, CFTC, CFTI & FDDI and dignitaries from the industry. He also paid heartfelt thanks to the family members of Late Prof. Moni Banerjee for their kind presence and participation in the event and also the Science City authority for their kind support to organize the event in their Seminar Hall as the Venue. Wishing a bright future to the award winners, Mr. Mallick requested all present to proceed to outside of seminar hall for tea & refreshments.

A good quantity of Audience consisting of around 100 – 120 persons witnessed the event.


(Susanta Mallick)
General Secretary

GLIMPSES OF THE 12TH PROF. MONI BANERJEE MEMORIAL LECTURE

Tribute to Prof. Moni Banerjee by Garlanding on his portrait



Award presentation during Prof. Moni Banerjee Memorial Lecture



RECEIVING PRINTED COPY OF JILTA EVERY MONTH

We have started to post Printed copy of JILTA from April' 2022 to members and all concerned as it was before Covid period. Simultaneously we have been sending the e-copy of JILTA through email also to all the concerned receivers.

If you are not receiving JILTA by Post or through email, may please verify your Postal Address and/or 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.

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.

General Secretary and the Members of the Executive Committee are available to interact with members at 18.30 hrs, at our Registered Office on every Thursday



ILTA
Since 1950

Solidaridad

With over 50 years of experience in developing sustainable solutions to make communities more resilient, Solidaridad has been working on many different issues, from supporting marginalized communities to fostering a more sustainable supply chain.



Castor



Tea



Sugarcane



Leather



Textile



Palm Oil



Aquaculture



Dairy



Fruits &
Vegetables



Gold



Soy



Cocoa



Coffee



Livestock



Medicinal Plant

Solidaridad

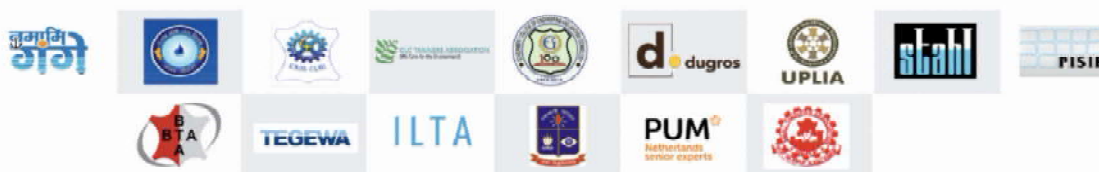
switchasia  

**EFFECTIVE WASTE MANAGEMENT AND SUSTAINABLE
DEVELOPMENT OF MSME TANNING COMPANIES IN KOLKATA
LEATHER CLUSTER (BANTALA)**

2022-2023



PROJECT PARTNERS IN ASIA



Pradipta Konar, Programme Manager-Leather(Kolkata): pradipta.konar@solidaridadnetwork.org

Solidaridad Regional Expertise Centre

158/5, Prince Anwar Shah Road, Kolkata-700045 | Contact: 033-40602211, +91-9830279866

Fleshings to Tallow : A Waste to Wealth Approach by Solidaridad

Solidaridad's innovative solution creates an economic opportunity for the local tanners as well as reduces the environmental impact of the leather industry.

The leather industry has long been known to generate a significant amount of solid and liquid waste. While the liquid waste can be treated, the disposal of solid waste has always been a challenge. One of the major solid waste generated during the pre-tanning process is the fleshing waste. It accounts for approximately 50-60% of the total solid waste generated in the leather industry.

This fleshing waste is collected by the local collection centres, and is typically dried and burnt into ashes and converted into animal feed. Alternatively, some of the fleshing waste is converted into tallow in an open digester. However, these practices are harmful for the environment and unsustainable.



Figure 1 Fleshings produced in tannery

The Solidaridad Approach

Solidaridad, a global organization working towards creating sustainable supply chains, is addressing this issue by finding sustainable and eco-friendly alternatives for the local tanners and collection centres. Solid waste management in a sustainable manner is one of key focus areas of Solidaridad and partners to create win-win propositions for all the stakeholders in the supply chain. Within this, one of the primary focus areas is the tallow extraction process, which involves separating the fatty material from the fleshing waste.

In Kanpur, the mismanagement of fleshing waste has been a pain point for the industry. There is no proper channel for disposal, and the unsustainable methods in practice lead to many problems. For example, the high organic content in the waste causes foul odour, which can make life unbearable for nearby residents.

Continuous exposure to deteriorating surrounding environment puts people at risk of developing breathing problems and contracting infections through airborne pathogens. Furthermore, the leachate that enters the river through neighbouring drains has an adverse effect on the river's biodiversity, putting aquatic life in danger.



Figure 2 Open air digester treats fleshings in an unsustainable manner and generates pollution

The traditional tallow extraction process is time-consuming and inefficient, resulting in significant waste of resources. However, after conducting intense research, Solidaridad has managed to increase the efficiency and sustainability of the existing process by making some modifications to it.

Solidaridad's innovative approach involves cooking the fleshing waste with steam at a precise temperature. This separates the fatty material from the fleshing, which then starts to float on top of the reaction chamber. The remaining fatty matter is separated, filtered, and purified using diluted sulphuric acid, which is readily available in the market.

The result of this process is tallow, a valuable commodity in the market which is widely used in India for making soap and other products. Solidaridad estimates that from every 1,000 kilograms of wet fleshings, around 25-30 kilograms of tallow can be recovered. By implementing this innovative process, Solidaridad is not only creating an economic opportunity for the local tanners but also reducing the environmental impact of the leather industry, particularly caused by the disposal of fleshings.

To showcase the efficiency of this process, Solidaridad partnered with Super Tannery, Kanpur, and established a tallow oil extraction pilot plant demonstration on the premises of the footwear manufacturing company. Uttar Pradesh Leather Industries Association (UPLIA) also helped with the facilitation of the process. This pilot plant offers an eco-friendly solution to convert fleshing waste into tallow, which is a much-in-demand product used for making soaps, candles, paint, among other things. This intervention is a significant step towards managing solid waste generated during the leather manufacturing process. This pilot plant was inaugurated on 25 February 2023 by Shri G. Asok Kumar, Director General, National Mission for Clean Ganga, Ministry of Jal Shakti, Government of India.

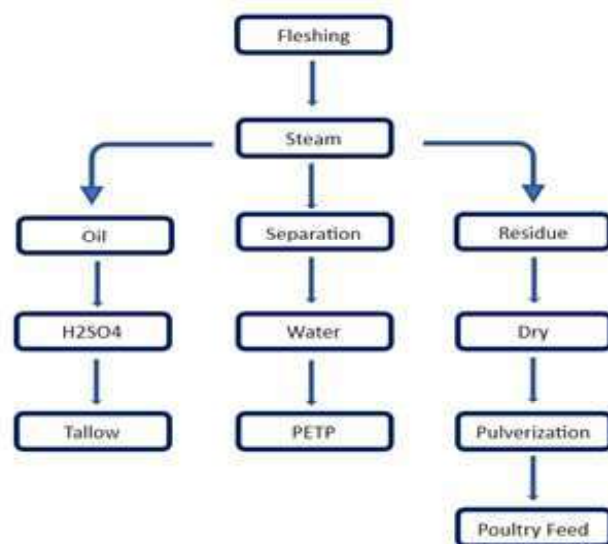


Figure 3 Process flow chart of tallow production from fleshings



Figure 4 Pilot tallow plant installed at Super Tannery, Kanpur

Solidaridad



ILTA
Since 1950



Figure 5 Inauguration of the pilot tallow plant by DG, NMCG



Figure 6 The partners in this project



Figure 7 The tallow produced

Key Benefits of the Intervention

A major benefit of the intervention is the reduced risk of contamination of the groundwater resources near the dumping area. Additionally, it is a sustainable and eco-friendly option for extracting tallow from fleshing, which also reduces the greenhouse gas emissions due to the disposal of fleshing. The separation of the liquid and solid portions of the digestate (wet mixture) is made easier; and the hydrolysis under high pressure and precise temperature produces pathogen-free fertilizer.

Notably, the intervention helps in converting a problem into a solution, citing the example of circular economy. The protein recovered as sludge can be further processed into protein feed. This intervention has numerous environmental, economic, and social

benefits, making it an attractive solution for addressing the challenges posed by the animal waste disposal in the leather industry.

Solidaridad's work on the tallow extraction process is just one example of their efforts towards creating a sustainable and responsible supply chain. By focusing on innovative solutions and sustainable practices, they are setting an example for the industry and paving the way for a greener future. This initiative is part of their ongoing project, 'Pollution Prevention and Efficient Water Use in Kanpur-Unnao Leather Cluster', supported by the Netherlands Enterprise Agency, Government of Netherlands, with National Mission for Clean Ganga, Government of India, Stahl, PUM, UPLIA, STA among esteemed partners.





INTERNATIONAL UNION OF LEATHER
TECHNOLOGISTS AND CHEMISTS SOCIETIES

Winners of three IULTCS Young Leather Scientist Grants for research announced

The Executive Committee of the IULTCS is pleased to announce the winners of the 2023 IULTCS Research Commission (IUR) Young Leather Scientist Grants. The research grants are awarded to three young scientists, under the age of 35. The monetary awards help support the work of young talent in the leather sector.

This is the ninth year of the grants which have been generously supported by industry. The Selection Committee of IUR, chaired by Professor Dr Michael Meyer, is pleased to announce the following recipients:



Tyson Foods: Young Leather Scientist Grant 2023 Basic Research



Tyson Foods has provided the sponsorship of a € 1,500 grant for Basic Research to Dr Ilaria Quaratesi from the Leather and Footwear Research Institute (ICPI), Bucharest, Romania. The title of the project is 'Non-toxic and biodegradable supramolecular additive with flame retardant and antimicrobial properties for the tanning industry'.

The project's main objective is to develop an antimicrobial flame retardant, which can as well be used in the leather industry basing on hydroxyl apatite and cyclodextrines using an ultrasound assisted continuous flow process. Flame retardancy and antimicrobial activity will be tested according to standardised procedures.

Erretre: Young Leather Scientist Grant 2023 Machinery / Equipment

Erretre has provided the sponsorship of a € 1,000 grant for Machinery / Equipment research to PhD candidate Vasanth Swaminathan from Anna University, Chennai, India. The title of the project is 'Reduction of carbonization and gas emissions using mechanotronics based intelligent laser beam machining, with machine learning, for cutting leather with better environmental measures for operator health'.



INTERNATIONAL UNION OF LEATHER
TECHNOLOGISTS AND CHEMISTS SOCIETIES
(www.iultcs.org)

The project's main objective is to optimise leather cutting by variation of the distance and pulse width of a laser diode assisted machining. Effects on different parameters as carbonization, rate of material removal, kerf width and emission rate will be investigated, and carbonization will be followed by using image processing.

Dr Mike Redwood: Young Leather Scientist Grant 2023 Sustainability / Environmental Award

Leather Naturally has provided the sponsorship of a € 1,000 grant for Sustainability / Environment research to Dr Yue Yu from Sichuan University, Chengdu, China. The title of the project is 'Controllable oxidation and degradation of lignin via H_2O_2/O_3 from biomass into a retanning agent for sustainable leather manufacturing'.

The project's main objective is to develop a light-coloured, lignin-based retanning agent which can be used as a green substitute for aromatic syntans using H_2O_2/O_3 synergistic oxidation technology. The oxidation mechanism has to be investigated, followed by research about the interaction mechanism between oxidized lignin and Cr-tanned leather. Finally a new retanning process is to be developed and its environmental impact will be evaluated.

The grants have been very successful and well received by industry. Referring to the awardees of the 2023 grants Dr Meyer said "All three project proposals show technological knowledge at a very high level and demonstrate the competitiveness of the leather industry with other industries worldwide. We are very happy that the profile of the Young Leather Scientist Grants continues to grow and thank our sponsors for the support that they continue to give. It will enable our young scientists to contribute their scientific knowledge, to the benefit of the leather community. We look forward to seeing the research outcomes of the projects we are supporting and wish them every success as they contribute to expanding our industry knowledge."

(Source : Email from IULTCS - 28/02/2023)



Common Methods for Testing Footwear by hand

Mr. Ramesh Chandra Sahoo

Sr. Faculty & HOD, Footwear Dept, Footwear Design & Development Institute (FDDI), Kolkata, Ministry of Commerce & Industry. Govt. of India.



INTRODUCTION

Footwear is a highly diverse category, with thousands of models that use a wide range of materials, and require a number of different production processes. This makes footwear testing and quality assurance a highly demanding and specialized process. Footwear expertise and testing will help your brand ensure the quality and safety of every type of footwear, including fashion and formal shoes, athletic footwear, specialized and professional footwear, and children's shoes. It will make you healthy.

COMMON METHODS FOR TESTING FOOTWEAR BY HAND

Precisely when subjective testing of shoes became a routine part of clinical assessment is impossible to determine, but there is no doubt that it is historically well established. To assess heel counter stiffness, Menz and Sherrington (2000) instructed the assessor to exert firm pressure halfway up the posterior aspect of the heel counter, then visually estimate the degree of buckling relative to vertical and categorize it as minimal. Less than 45° or greater than 45° Barton et al. (2009) offer more or



Method for manual assessment of heel counter stiffness

less the same instructions but stated that the fore should be applied approximately 20 mm from the base of the heel counter. The assessor to exert firm pressure to the front of the shoe while the rear part is stabilized, then visually estimate the degree of sole.



Method for manual assessment of flexion stiffness.

Flexion relative to the horizontal plane and categorize it as minima, less than 45° or greater than 45°. This maneuver is demonstrated in figure above.

Barton et al. (2009) added the assessment of sole rigidity in the frontal plane (torsional stiffness) and instructed the assessor to grasp both the rearfoot and forefoot components of the shoe and attempt to bend it at the midfoot in the frontal plane. As can be seen in figures, this maneuver involves a twist rather than a flex type of action.

Therefore, the objective of simple, machine-based, quantitative footwear assessment is to retain the essence of the equivalent manual test. Outcome rather than categorize the finding according to an arbitrary scale. This then was the design

philosophy adopted when constructing the test rigs used in his investigation.



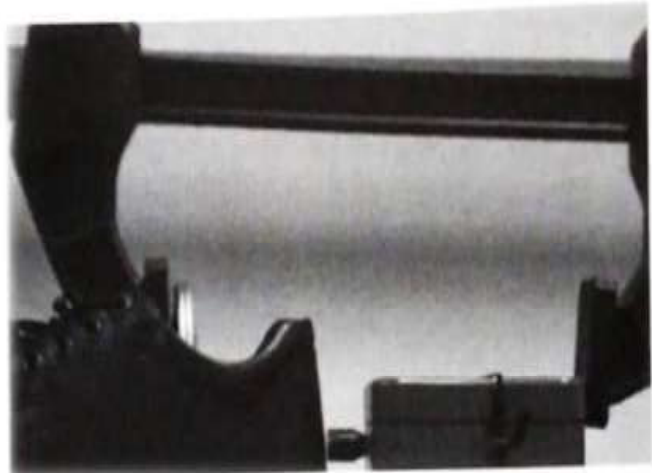
Method for manual assessment of torsional stiffness showing inversion of forefoot.



Method for manual assessment of torsional stiffness showing twist through length of the shoe.

DESIGN, CONSTRUCTION, AND OPERATION OF THE TEST RIGS

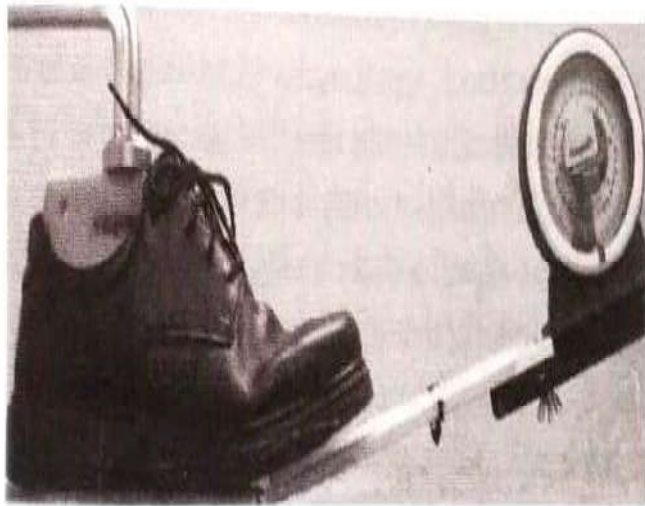
The heel counter stiffness test rig was constructed essentially using two clamps and a force gauge, all of which were commercially available and relatively inexpensive. Both clamps had a quick release action. The first clamp was used to fasten the shoe to the test bench and prevent any displacement during testing. The force from the restraining clamp was distributed through the midsection and heel via a steel plate placed inside the shoe. The second clamp had a trigger-grip compression setup for heel counter stiffness test rig showing first clamp in throat of shoe to maintain stability and second clamp with trigger grip providing compression through force gauge.



Alignment of soft-faced indenter at posterior aspect of heel counter.

Mechanism that provided a remarkably consistent displacement of the jaws each time the grip was squeezed fully the trigger-grip clamp was used to exert force in incremental steps, via a force gauge, to the heel counter. The force gauge was supplied with a series of interchangeable hooks and indenters and for this rig, a circular, soft faced, indenter with a contact area of 1 cm² was selected. It being the closes approximation to the fat pad of a thumb. The height of the indenter relative to the heel counter could be adjusted between 5 and 40 mm by using shims beneath the force gauge, which was secured above a low friction slide fabricated from a strip of high-density polyethylene. Once the shoe was clamped in position, the counter could be step-loaded by repeatedly squeezing the trigger and the linear displacement and force could be recorded for each increment. The number of increments could be varied depending on the robustness of the footwear being tested but five increments each of approximately 3.8 mm (19 mm total) generally provided a satisfactory test.

A simple hinged platform formed the basis of the forefoot flex test rig. In addition to the hinged platform, a single clamp, an appropriately sized shoe last, a force gauge and an inclinometer were needed to secure the shoe and derive the measurements. The force from the restraining clamp was distributed through the heel and midsection via the truncated last, which had been shortened to 60% of its Flexion stiffness test rig setup showing restraining clamp acting through truncated last and



hinged platform with inclinometer. Original length by the removal of the toe region. This method of restraint differed from the steel plate used to hold the shoe in the heel counter test rig. The shortened last was chosen because it prevented the heel counter and vamp from collapse or excessive distortion when the shoe was flexed during testing, thereby simulating the effect of the foot in the shoe and probably producing more realistic results. The shoe was located in the rig so that the hinge was aligned with the metatarsal flex region.

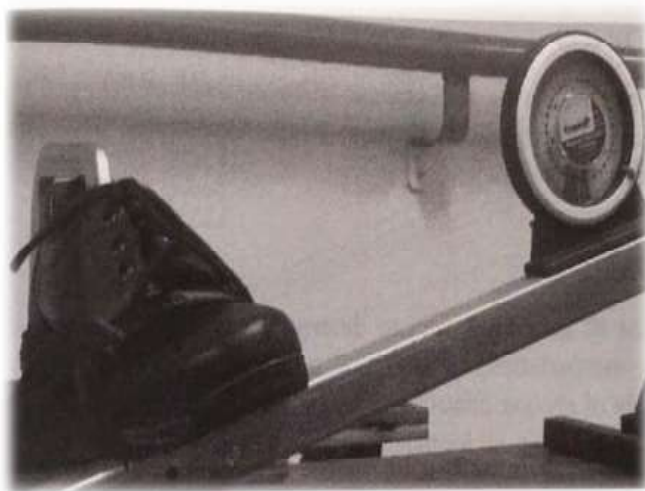
To determine the position of the metatarsal flex region the shoe, groups of footwear of different styles were measured prior to any testing in the rig. The metatarsal flex region appeared to be located in marginally different positions depending on the style and design of the footwear. For example, in school shoes the metatarsal flex region appeared to be located on average at 66% of the length of the shoe, while for safety boots the flex region was closer to 69% of the length of the boot. In general, the flex region would seem to be located in a zone that is between 65% and 70% of the length of the footwear.

With the shoe correctly located in the rig, the hinged platform was raised until it made gentle contact with the front section of

the sole, and the inclinometer was zeroed. A torque centered at the axis of the hinge mechanism could then be applied to the shoe via the platform. The handheld force gauge was used to generate the torque, having replaced the indenter by a hook and sling. The sling allowed tensile load to be applied to pull the platform up and this was physically easier to control than trying to push the platform up from below. The magnitude of the applied torque was determined as force \times distance, where the force was measured of the load cell and the distance was the distance from the hinge to the point of attachment of the sling along the platform. Raw data were corrected to ensure that the component of force perpendicular to the platform was used rather than the vertical force acting through the sling and gauge and to make an allowance for the torque required to displace the unloaded platform. With a shoe in place, the effective torque was recorded at 5°, 10° and 15° displacements from the zeroed start position, which reflected the inherent toe spring formed at the time of manufacture.

The torsional stiffness test rig is comprised of two platforms a fixed rear platform on which the heel was clamped and a rotatable front platform on which the forefoot of the shoe could be constrained by means of an adjustable strap. As in the other tests, the heel was clamped using a quick release clamp and the load distributed to the appropriate internal areas of the shoe. To distribute the clamp, load a flat wooden block approximately 15mm thick was cut to the outline shape of the heel cup and inserted in the shoe. The inferior surface of the block was mildly contoured to ensure that it sat snugly in the shoe. The block size was such that its straight leading edge aligned with the leading edge of the heel at the boundary between the heel and the midsection of the shoe.

To determine the position of the leading edge of the heel groups of footwear of different styles were measured prior to any testing on the rig. On average the leading edge of the heel was found to be at 30% length of the shoe. The 30% length mark was subsequently used to locate the heel section on the rear platform while the forefoot flex mark (65% - 70% of length depending of footwear type) was similarly used to align the forefoot on the front platform. To minimize collapse of the toe box, an appropriately shaped stiff foam plug was inserted into the shoe prior to tightening the restraining strap around the forefoot. During the setup procedure care was taken to ensure that the axis of rotation of the front platform was aligned with the long axis of the shoe.



Torsional stiffness test rig setup showing front platform with central axis of rotation.



Torsional stiffness test rig setup showing clamp to grip heel and restraining strap for front platform. Note that the shoe is located according to 30% and 66% marks.

On completion of setup process the shoe was deemed to be correctly located in the rig if the length marks were aligned as described, the front platform was horizontal and the inclinometer indicated zero. A torque could then be applied to the shoe via the platform in the same way that it was when testing flex- the force gauge and sling was used to generate the torque by pulling the platform up. Force vector corrections and compensations to allow for the inherent resistive torque of the unloaded platform were made as they were for the flex tests. The effective torque was then derived at 5°, 10° and 15° displacements from the horizontal start position. The shoe was subjected only to torques that inverted the forefoot.

CONCLUSION :

Though Footwears are, Fashion, Life style, Paramedical Products, so testing will identify defects, Durability, Fitting, Flexibility, Reliability, Comfort, reduce flaws and increase the overall quality of the system. Everyone can make mistakes, so testing is necessary because it helps us identify bugs or errors early. It will improve our health-related fitness and help us to understand how healthy we are.

REFERENCES :

Rabindra S. Goonetilleke- The Science Of Footwear.



CONDOLANCE MEETING ORGANIZED AT GCELT

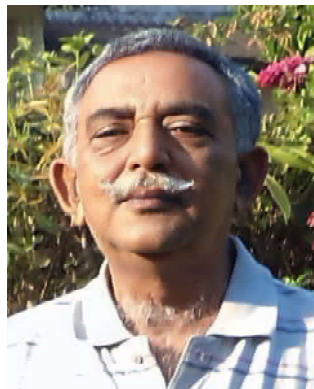
A Condolence Meeting was jointly arranged by Govt. College of Engineering & Leather Technology (GCELT), Alumni Association of Govt. College of Engineering & Leather Technology (AAGCELT) and Indian Leather Technologists' Association (ILTA) flat 3.00 PM on Saturday, the 25th March, 2023 at the conference room of GCELT to offer tribute to the departed souls of the following Alumnus / Members / Technologists.



Late Chinmay Biswas



Late Subrata Dasgupta



Late Tapas Kumar Sanyal



Late Arup Kumar Mitra

A number of Faculties & Students of GCELT, Members of ILTA & AAGCELT and Technologists from industry were present in the event. Everybody remembered their memories during their times spent with these four technologists. They prayed to the almighty for letting the departed souls rest in peace and for bestowing enough courage to the bereaved families.



NOW IS THE TIME TO HIGHLIGHT THE LONGEVITY OF LEATHER



If there was one headline, I did not expect to read in my favourite weekend newspaper, it was “Catwalks of clothes made to last”. Yet, that was what the Financial Times Fashion Editor Lauren Indvik chose as her top line two weeks ago for a thorough report on the Paris fashion shows.

For a while during the pandemic, the extravagant fashion catwalk shows with their enormous footprints looked like they might be replaced by more accessible digital editions. But the reverse has happened, and we have returned wholeheartedly to the pre-Covid scenario. But, despite this, there has been an increased enthusiasm to try and reduce the environmental damage being done by the fashion industry without going to the ideological extremes promoted by designers such as Stella McCartney.

The value of longevity has taken some time to be recognised, not helped perhaps by the 2002 book *Cradle to Cradle: Remaking the Way We Make Things* by architect William McDonough and chemist Michael Braungart, putting its emphasis on the management of natural and chemical elements at the end of life, sometimes giving the impression that a short useful life does not matter as long as the “afterlife” is correctly handled.

This concept is anathema to leather makers, as it is ingrained in the minds and hearts of tanners that leather is a material that lasts and lasts, and that leather products should be looked after and repaired or refurbished as required. We like the fact that upholstery, in the home or the automobile, takes some years to wear in and that when it does it looks better than when first purchased. Our leather goods are friends, blemishes are reminders of life moments and we know that leather wears in rather than wears out. Some older tanners still look out for leather patches to sew onto the thinning elbows of well-loved woollen jumpers.

So, perhaps it is understandable that something so obvious has only recently become top of mind for leather industry communications, despite the original circular concept coming from an architect who argued that buildings should be restored and updated rather than destroyed and replaced with new material and huge amounts of CO2 produced with newly made concrete. In this regard, plastics have made it worse.

While their longevity in landfill is 500 to a million years, their useful life in articles is rarely more than 20 years. However, it is their use in making low-cost synthetic fibres that has helped accelerate the consumer tsunami of buying cheap, throwaway goods that are hardly worn or cannot withstand more than a couple of washes.

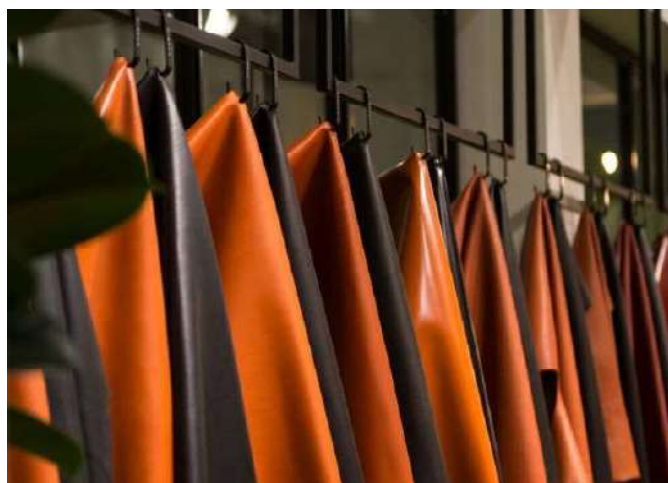
Although we are 30 years late, the message is getting through that a better choice of materials is required and the quality of manufacturing counts. Fashion cannot afford to be a race to the bottom, driven to high levels of plastic content by influencers with ulterior motives. With that in mind, we should congratulate Lauren Indvik for her decision to drastically reduce her clothing purchasing this year, and for being willing to talk clearly about leather’s involvement on the catwalk despite being a committed vegan.

Most fashion weeks contain amounts of leather that offer hope of a revival of leather in everyday fashion, but when Chloe’s Gabriela Hearst is quoted describing her polished leather and shearling coats as “meant to be passed on”, this is a stronger tale. The various collections showed more leather jackets, coats and trouser suits and it sounds like across the board more natural materials were being used. The Leather Industry’s COP26 statement has clearly not been wasted but has actually helped with the accumulation of messages getting through to the press, consumers and designers about the need for honesty and education in materials.

So, as everyone meets this week in Dubai, there is reason to be optimistic. To keep up the difficult, steady task of helping the industry educate the consumer with material that is only based on truth, and to work on making leather and articles made from them even better. We should also remind the modern automobile industry that renewable energy needs renewable, sustainable upholstery.

(Dr Mike Redwood, ILM – 14/03/2023)

CHINA 2022 LEATHER EXPORTS UP BY ALMOST 20%



China's leather exports were up by nearly 20 percent in 2022 while imports were down, according to Chen Zhanguang, chairman of the China Leather Industry association. Chen presented the statistics at a press conference during the Asia Pacific Leather Fair (APLF) in Dubai.

China's leather industry generated sales revenue of 1.16 trillion yuan in 2022, decreasing slightly by 0.1% from the previous year. Exports of the entire leather supply chain amounted to US\$107.55 billion, a year-on-year increase of 19.3%, while imports amounted to \$17.27 billion, a decrease of 12.3% year-on-year.

Tannery

- Imports of raw hides and skins were 1.21 million ton and US\$1.35 billion, down by 3.1% and 6.9% compared to the previous year.
- Semi-finished leather imports were 502,000 tons and US\$1.02 billion, declines of 15.8% and 18.3% year-on-year.
- Finished leather imports totalled 49,000 tons and US\$900 million, declines of 24% and 18.3% year-on-year.

Leather Garment Industry

- China exported 10.23 million leather garments valued at of US\$170 million, higher by 18.2% and 20.2% respectively over 2021.
- Imports were 337,000 leather garments totalling US\$110 million, declines of 26.4% and 3.5% respectively from the previous year.

Footwear Industry

- In 2022, China exported 9.29 billion pairs of footwear for US\$57.58 billion, increases of 6.6% and 20.4% year-on-year.
- Footwear imports totalled 190 million pairs and US\$5.9 billion, down by 10.3% and 3.7% from the previous year.
- China exported 720 million pairs of leather shoes for US\$11.46 billion, higher by 7.8% and 14.9% over the previous year. Leather shoe imports were 71 million pairs and US\$2.8 billion, slightly lower by 0.2% and 0.8% from last year.

(leathermag.com – 21/03/2023)

CHANGES FOR CONSUMERS MEAN CHANGES FOR TANNERS



Leather is used to make things. Tanneries seek out manufacturers that use leather as the sole or shared component in the article being made. That the leather is a “component” leads to discussions about the role of ingredient branding, reminding us of campaigns such as “Intel inside”, NutraSweet and “Gore-Tex”. Yet we must not allow such exciting topics (at least to marketers) to lead us to ignore the actual person who buys those articles.

Given the diversity of articles with leather, those consumers are to be found all over the world and at most economic levels. And, at an economic level, things have changed over the past three years. Those newly entering the “middle classes” used to buy wallets and purses for their change and notes, but digital money has made that an obsolete exercise in many emerging economies where the mobile phone is used to hold money and make payments. Those aspiring to get on in business used to buy an executive-style briefcase but with phones and laptops now dominating that has diminished too.

Bigger picture

There is also a bigger picture. For the past 20 years, there has been a strong trend of pulling people out of poverty all around the world but, in 2020, the World Bank believes that reversed with the number in extreme poverty slipping by over 10% to 719 million globally. Since then, things have got even worse with the rising cost of food as Russia has “weaponised” access to grain, fertiliser and energy.

Add in technological disruption and climate change and it is quite a cocktail. No surprise then that mental health issues continue to rise. It was 40 years ago when the American Psychiatric Association added post-traumatic stress disorder to the “Diagnostic and Statistical Manual of Mental Disorders”. PTSD is said to be caused by an event or series of events well beyond the normal range of human experiences.

Beyond marital breakdown, simple bereavement, broken love affairs, chronic illness or bankruptcy, but including proximity to death, near-death experiences, serious injury and sexual violence. Perhaps after these three years, all consumers are suffering from a degree of PTSD; certainly, untold numbers have faced horrendous issues as the result of war, extreme weather and earthquakes.

Consumer changes

That might be thought of as a bit flippant, but these are stressful times and there are big ongoing consumer changes. Society is ageing quite quickly; the rich get richer while the poor a lot poorer. In many countries, food and fuel cost rises have pushed even working families into difficulty with the definition of poverty being continuously recast.

Whether you are making leather for small leather goods or leather for airline seats, you have to look carefully at what is happening. In my 1966 Filofax, I scribbled on the cover a quote from V.V.M.Rao: “The English language has five golden words: What, Where, When, Why and How”. They all have to be answered anew as to consumer behaviour that will lead to the tanner’s bills being paid. Who will now be buying those small leather goods and flying in those seats? Why? When? And so on until you have the answers.

Changes in spending

We are seeing high levels of frugality as some consumers watch their expenditure carefully, on one hand set against revenge

spending by those who saved during periods of lockdown and want to make up for it now with high levels of travel and retail therapy. Deep down, the shifting times and generations have also started a move to more considered purchasing with less wasteful buying for short-term use. The longevity of leather is being evaluated anew, as is the fact that it is a useful material that turns up when we drink milk, eat cheese and meat, and enjoy seeing livestock caring for our landscapes.

We knew these things all along but, in the rush of technological advancement, influencers (for years APLF was telling us about Shanghai’s cool crowd of KOLs – Key Opinion Leaders) lead consumers head down into consumption at all costs to look right on the night. Reversing this will take time but, as the consequences are becoming more widely understood, change is happening and leather should benefit in the long run.

Yet we should be very clear that leather only benefits if we do not make assumptions about the complexity and diversity of the consumers who buy the many products made of leather. As tanners, we must invest in understanding as much as we can about them and adapting our incredibly versatile raw material to fully meet their needs.

(Dr Mike Redwood, ILM – 01/03/2023)

MSME SECTOR TO SOON BECOME THE LARGEST EMPLOYER OF THE COUNTRY: B B SWAIN, MSME SECRETARY



Despite facing a challenging phase, the country’s MSME sector continues to create employment and foster entrepreneurship across the length and breadth of the country, said B B Swain, Secretary, Ministry for Micro, Small and Medium Enterprises (MSMEs).

"I don't think we are very far away from the situation when this sector becomes the largest employment provider in the country," he said, speaking at the session titled "Envisioning MSMEs for Bharat@100", organised in the capital yesterday by the industry body ASSOCHAM.

Citing the latest available data of the National Sample Survey((NSS), he said the MSME sector has been creating 11.10 crore jobs. The NSS 73rd round conducted during the period 2015-16, has found that the MSME sector has been creating 11.10 crore jobs (360.41 lakh in manufacturing, 387.18 lakh in trade and 362.82 lakh in other services) in the rural and the urban areas across the country.

To help the MSME sector face the current challenging phase, the government is working towards a comprehensive and coordinated response, Swain added. "We are working with stakeholders to provide an enabling environment to MSMEs, with a focus on access to credit, low cost of finance, equity inclusion, technology upgradation, access to green technology, enhanced procurement, and domestic and international market access and information dissemination."

Touching upon the MSME specific announcements made in the Budget 2023, the MSME secretary further mentioned that several fresh measures have been initiated this time to promote timely payments to MSMEs. He asserted that in order to promote timely payments to MSMEs, the Budget 2023 proposed to include payments made to MSMEs within the ambit of Section 43B of the Income Tax Act, 1961. This means that a deduction for such payments is only permissible when the payment is actually paid within the time prescribed under the Micro, Small and Medium Enterprises Development Act.

"The budget also announced that 95% of the security amount that used to get forfeited in case of failure by the MSMEs to execute contracts in the Covid period will now be returned by the government and its undertakings," he said, adding that the budget has announced revamping the credit guarantee scheme under the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) with the infusion of Rs 9,000 crore in the corpus, effective April 1, 2023.

"We are aiming to start the reductions of the guarantee fee from 1st April this year. We intend to reduce the guarantee fee by 50% soon, which will provide a significant boost to the growth of MSMEs. Besides, we are aiming to bring guaranteed

credit support of 2-lakh crore more because of this infusion," he added.

(The Economic Times – 22/03/2023)

BRAZIL'S FEBRUARY HIDE AND SKIN EXPORTS DECLINE



Brazil's February exports of hides and skins totalled US\$75.4 million in value. This is down by more than 23.9% from the previous month, and 31.3% lower than the same month last year. The data was presented by the SECEX (Secretariat of Foreign Trade) of the Ministry of Industry and Foreign Trade and analysed by the CICB.

In terms of square meters, 10.7 million were exported in February, down by 26.2% from January and by 7.3% from February last year. During the first two months of the year, exports totalled US\$174.6 million, 17.5% less than in the same period of 2022. In terms of square meters, however, it was 6.6% higher.

In the first two months of the year, China remains the top buyer of Brazilian hides and skins and the United States ranks second. Italy is in the third spot. The three main buyers of Brazilian leather all purchased less in February results.

By stage, in the two-month period compared to 2022 :

- Wet Blue exports dropped in value by 13.0% but increased by 49.4% in area;
- Scraping WB increased by 6.3% in value, but decreased by 12.4% in area;
- Crust dropped by 23.6% in value, and 13.5% in area;
- Finished goods decreased by 22.1% in value and 10.3% in area.

Salted skins continue to see strong increases in shipments, now more than tripling in value and almost quadrupling in volume. With regard to China, recent good news shows that economic activity grew significantly in January and February. This indicates buyers in that country may resume purchasing soon, with positive effects on the leather industry and on domestic exports in the sector.

(leathermag.com – 23/03/2023)

SOLIDARIDAD SETS UP FLESHINGS PILOT PLANT



Campaign group Solidaridad has setup a pilot plant at Super Tannery limited in Jajmau, Kanpur, to convert fleshings into tallow oil.

The pilot plant, capable of processing six tones of fleshings per day, will allow for the sustainable conversion of the waste into tallow oil, an expensive and in-demand product for certain industries.

Currently, much of the waste is sent to open incinerators where it is dried and burnt, whilst some is converted to tallow in open digesters. With fleshing wastes having a high organic content, leachate that enters rivers through drain systems can have an adverse impact on biodiversity. The pilot plant aims to address these issues, under the ongoing Kanpur-Unnao leather

project, 'Pollution Prevention and Efficient Water Use in Kanpur-Unnao Leather Cluster'.

The plant was inaugurated on February 25 by Mr. G. Asok Kumar, Director General, National Mission for Clean Ganga (NMCG), Ministry of Jal Shakti, Government of India in the presence of Executive Director, NMCG, Regional Officer, UP Pollution Control Board and leather industry stakeholders.

(Leatherbiz.com - 03/03/2023)

PRADA GROUP TO HIRE MORE THAN 400 PEOPLE IN 2023



Prada Group has announced a plan to recruit more than 400 people before the end of 2023, to "strengthen its production capacity and craftsmanship expertise in Italy". This will include more than 200 professionals trained through the Prada Group Academy across leather goods, footwear and ready-to-wear. The company has said that its hiring plan will allow it to support growth predicted following its **successful 2022 results**, and will reduce time-to-market for its products as well as fostering craftsmanship in Italy.

Industrial Director Massimo Vian said: "Prada Group continues to invest in its supply chain, consistent with what was announced during our Capital Markets Day at the end of 2021. We have an ongoing commitment to strengthen the industrial backbone of the group, while being respectful of our long-time suppliers.

"Today, we are proud to announce more than 400 new jobs which will support the group's growth in the coming years. The Prada Group Academy will become increasingly crucial for the future preservation of our know-how and the one of the sectors. We feel a responsibility to invest in young talent who will become the next generation of expert craftspeople."

(ILM - 03/04/2023)

FORTNIGHTLY RON SAUER REPORT – MARCH 9, 2023

Australia:

- If Chinese tanners were looking for hides at reduced levels, then they have been out of luck with Australian hide suppliers.
- European tanners are reporting lower finished leather orders on all but for the very high-end fashion business and, as a result, there has been very little activity reported to this destination for 2023 so far.

Brazil:

- The average price of wet-blue hides has also increased, with Brazilian and U.S. suppliers both following the same pattern of holding firm on their offer price lists. With little in the way of alternatives, Chinese and other Asian tanners have followed the market up regardless of whether this fits into their finished leather programmes.

China:

- Tanners continue to see no reason for the cured hide market to increase, especially as they are receiving finished leather orders at stand on price levels and often for lower volumes.
- Split prices in China are a concern for tanners at present, with the average price recently increasing. Tanners are utilising their own splits and there is reported to be almost nothing available on the open market.

Germany:

- Just prior to the Lineapelle leather fair, there were a few price increases paid for the heavier better-quality hides, which were in high demand and low availability, not just in Germany but across most of Europe.
- From the tanners' point of view, there was no justification for increases, they certainly were not receiving more for their finished leather. Upholstery is of particular concern for tanners, we are now entering a period of the year when furniture sales fall.

Ireland:

- There has been demand for heavier hides from European tanners, but the lighter and mid-weight hides remain much harder to sell.
- There have been a few complaints about dirty hides this year from European tanners, this is a perennial problem for Irish hide suppliers and one that can often indicate the state of the market.

Italy:

- European tanners are reported to be at a crossroads, and many do not see much in the way of volume work for finished leather, be this fashion, automotive or furniture upholstery.
- Calfskins continue to be in demand for high-end fashion but the demand for material is still way above the supply, meaning that prices are still rising.

- Although, this is the one area of the finished leather world where higher prices can either be absorbed or passed onto consumers.

Kenya:

- Kenyan exporters expect to see more activity from Chinese customers going forward.
- Prices that Kenyan tanneries are offering their material at are not being seen necessarily as on par with what the market would be willing to pay today, the offer lists are more of a wish list than actual price indications of the real market.

South Africa:

- As we move towards the end of Summer and therefore towards the very end of the tourist high season, many finished leather goods outlets are reporting that this has been their best year since the start of the pandemic – still a long way away from pre-Covid times but heading in the right direction. Raw hides have marginally increased in value over the past week.

United Kingdom:

- After the recent slight price increase for the heavier-weight, higher-quality hides sold to Italian tanners, there have been no further price gains. Italian tanners report that they still require the same higher quality hides but are unable to keep following the market up.
- Cowhides have been sold again to Chinese tanners, but there is no change in the price, the only advantage is the shipping rates, which are now much lower and provide a higher net return for suppliers.

United States:

- Shoe upper tanners have shown more interest this week than for some time. It is the lower weight and cowhides that are much harder to sell, even with some cowhide prices at rock bottom levels, tanners often counter down by several US\$.
- Suppliers held firm on cowhides and many of the fresh sales were at improved levels over the previously reported prices, although the volumes were possibly lower than required.

(CLE email - 28/03/2023)



Leather from Invasive Species

(Part-3)

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Kyon Deer (Reeve's Muntjac)



Of the two main species of deer native to Japan, the sika deer (*cervus nippon*) is predominant in numbers. They are classified into more than a dozen different regional subspecies, of which seven are found in Japan. The second is the reeve's muntjac (*Muntiacus reevesi*), an invasive species, originally introduced to Japan from China. (1)(2)

The inspiring artistic history and striking natural beauty of Naoshima island, situated on Japan's Seto inland sea (3) drew thousands of tourists annually in the 80s and 90s, which led to the establishment of the Naegawa Island amusement park, for the recreation of visitors. Due to falling attendance and low profits, the park ceased operations on 31, August 2001. (4)

The park had been home to some non-indigenous animals, primarily to entertain children. Upon closure, Some of the Reeve's Muntjac deer, known as Kyon deer in Japan, escaped the abandoned premises to establish breeding populations. In the absence of predators, the deer multiplied exponentially to the extent, their population jumped from 1000 in 2002 to 9200 in 2006 and 50,000 in 2020 (5)(6). Today, these ruminants can be found all over the Boso Peninsula in Chiba prefecture.

A sizeable number thrives in and around the Fuji-Hakone-Izu National Park, twenty-two miles southwest of Boso Peninsula, off the coast of Honshu. The Izu Oshima herds became established by a few stags and does, which escaped Oshima

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Zoo, when a fence collapsed during a severe typhoon. (7). With an annual growth of 15%, their number which was estimated at 11,000 in 2014 is now assumed to be in excess of 13000 in this volcanic island alone. This figure is 160% greater than the human population of the island. (8)

In 2005, under the Alien Species Law, the deer were designated as an alien species which cause damage to agriculture, insatiably grazing on tomato, kiwi, bamboo sprout, persimmon, rice, watermelon, and ashitaba crops. The metropolitan government of the prefecture began exterminating numbers in 2007. Based on the survey conducted in 2010, the population was estimated at 3,250, and from 2000, a plan was drawn up to catch 1,000 kyon deer every year and eradicate them within five years.

On hindsight the survey was largely erroneous, because the number to be caught or culled should have been three times more than the conventional plan of one thousand, in view of the fecundity of the ruminants, which multiplied at the annual rate of 15%. The short-antlered species reproduced in the first year after birth, bringing forth one fawn each time.

Due to these factors the Kyon culling plan (Yuko Matsumura), has not yielded the desired results till date. (9)

Ashitaba, belonging to the carrot family, has great importance in Japan for its versatility and effectiveness as a diuretic, digestive, antiseptic, and wound-healing agent. The plant is also an essential ingredient in regional cuisines owing to its nutritive qualities. (10)

The Kyon deer which have decimated Ashitaba plantations, are endemic to the Miura-Izu-and Boso Peninsulas and the Izu Islands, leading to a widespread loss for the community of farmers, who stand additionally diminished because Ashitaba cultivation requires a minimum of three years, for the first yield to be harvested.

Obstacles and nets are no impediment for the muntjac. They are able to jump over fences up to a metre in height and feast on flowers and sprouts of the ashitaba plant, acre upon acre. Further challenges in containing the deer menace in the peninsulas inhabited by them, are twofold. Firstly, it is prohibitively expensive to fence the entire area to secure the kyon. A 3-kilometre long, 1.8m high net is already in place, which cost JPY 6000 per meter to install in 2002. Even at 2002 exchange rates, the total cost of this exercise was approximately USD 180000.

Secondly, the area's mountainous topography and rugged terrain call for the engagement of local hunters, with intimate knowledge of the local geography and kyon grazing habits for effective culling. Unfamiliarity with the area can lead to unfortunate mishaps which can lead to injury or worse. In 2007, only two hunters volunteered for the purpose - grossly inadequate for culling the then-projected number of 1000. (11)

Faced with serious damage to crops caused by the burgeoning deer population, business owners and local hunters have come together to pit their combined strength, knowledge, and experience against the barking deer.

After the prefectural government began a full-scale eradication plan for the species in 2009, crop losses decreased. The encumbrance, however, was on hunters and the businesses which employed them, to devise ways to ensure that their efforts were not wasted. Until 2018 due to negligible demand for kyon venison and leather, most animals landed up being interred following the cull.

Leathers made from the skins of the kyon, which are serenaded for their visual and tactile luxuriance in Taiwan and China, are threefold stronger than most deer skins, due to their finer fibers, interlaced in a tight and compact pattern and angle of weave.

In Japan, a traditional leather craft called Inden uses Kyon leather imported from China.

Originating in Koshu city (Yamanashi Prefecture) and enriched by four hundred years of tradition and craftsmanship, Inden accessories are handcrafted, with intricate lacquer patterns being applied onto the deerskin. Over time, the lacquer seeps into the three- dimensional skin matrix. The resultant effect of scintillating motifs of the iconic "kosu inden", with its unique patina and veneer, is truly spectacular. (12)

Bequeathed to successive generations through four centuries and longer, the technique has been perfected on deerskin due to the exemplary strength, flexibility, softness, and density of the three-dimensional natural skin fabric. (13)

Yuki Ishikawa, president of Shikari and Hunt+, which conducts kyon hunting expeditions in Isumi city, Chiba Prefecture, is the pioneer of "Bosu Inden" – The first ever Kyon, made from the leather of the invasive barking deer of Japan. (14)

Yet another ancient art form of Japan, tracing its beginnings to the Nara period (AD 710 -784) is Urushi-gawa (Japanese for “lacquered leather”). It is a long-established, traditional craft that consists of lacquering deer leather, for fabrication into battle wear. A wide variety of urushi-gawa, both classic and contemporary, have been made from lacquer toughened unyielding leather, capable of holding moulded decoration, to supple leathers suitable for intricate motifs designed on the fine grain, with the help of paper patterns. Kyon leather has been found to be perfect for the purpose.

Notable for its soft and intricate surface weave and nap, kyon skin has been made into chamois leather for maintaining musical instruments, camera lenses, antiques and swords, as well as materials for beauty supplies. Its soft and intricate surface weave and nap have enabled its use as a medium for filtering water. The Japanese kanji character for “straining” liquids is derived from kyon chamois.

The town of Utano located in Uda District, Nara Prefecture has long flourished as the center of lacquered leather production in Japan.

It is particularly well known for its excellence in tanning, dyeing and finishing of Kyon leather. A significant volume of the deerskin produced is lacquered with the urushi-gawa (Inden) technique. Of redoubtable reputation in the craft, is Kasuga Co., Ltd., established in 1955. The third-generation tannery is involved in importing, exporting tanning, processing, and finishing producing high-quality leather products based on traditional techniques and methods.

A team of graduate students at the University of Tokyo in Kashiwa, Chiba, have devised ways to manage and manipulate kyon leather into bracelets for their science museum project called Exedra. (15)

Taxpaying citizens residing in urban areas of Japan are encouraged to make contributions to rural areas, through the system of Furusato nōzei, or hometown tax.(16)

The government is beleaguered by more and more young adults migrating to cities, in search of better employment opportunities, leaving fewer and fewer to pay rural taxes. To remedy the situation, the innovative scheme was introduced in 2007.

Taxpayers are permitted to opt for their preferred receiving jurisdiction and proportionately offset contributions against

individual residence-and income-tax liabilities, for contributions upward of 2000 Yen.

Cities receiving donor largesse are similarly allowed to “express their gratitude”, by offering specially priced and attractively discounted products such as Misaki tuna and greenhouse melons to the contributors, who are given the liberty of choosing from a list of options.

As a result, local governments are seeing a rapid increase in donations for “special products” that are presented in return, and there are cases where the production of “special products” is simply unable to keep up, with the waiting period being several months.

Both sides seem to see the merits, as taxpayers are able to save tax and obtain special products at great prices, and local governments can increase their tax revenues and promote their local communities.

In the spring of 2021, Kashiwa city, in Chiba prefecture, one of the areas affected by the reeve’s muntjac menace, added a money clip made of kyon leather, as one of the items on offer for contributions of Furusato nozei, in the hope of familiarizing people outside the region, with the devastation wreaked by the invasive ruminants. Sadly, till date, not a single request has been received for the same.

But the initial lack of interest has not discouraged leather goods manufacturers from using kyon leather. (17)(18)

Deer are accountable for the sizeable loss of agricultural crops in Japan. According to the Ministry of Agriculture, Forestry, and Fisheries. In fiscal 2019, alone, the hooved ruminants caused 5.3 billion yen (\$48 million) in losses, rendering culling unavoidable. In all, more than 600,000 deer were captured or killed that year, the ministry said. A mere 13% were used for consumption, but 80,000 skins were discarded.

A woman entrepreneur was influenced to initiate foray into deerskin business, in March 2020, after discovering the staggering number of deerskins trashed as waste each year.

With the two-fold objective of deepening patron appreciation of Japan’s biodiversity wealth, as well of the necessity of culling a large number of deer each year to protect valuable crop, Inswirl, a shop selling a wide range of deerskin products

in Nagano (the capital and largest city of Nagano Prefecture) has been doing brisk business, making in excess of 30 kinds of deerskin products such as handbags, billfolds, key fobs and purses. The exclusive collection and range are expensive because only four accessories are produced painstakingly by hand each day. (19)

Instituting which could prove to have far-reaching benefits to all the stakeholders in invasive species management in general and kyon deer culling in particular, a mobile abattoir nicknamed the “gibier car” (gibier is the French and Japanese term for wild game meat) was commissioned in August 2017 in Yusuhara town in Kochi Prefecture. (20)

The 6.5-meter-long, 2-tonne gibier truck, developed by a Toyota Motor Corp. subsidiary in Nagano city and the Japan Gibier Promotion Association, based in Nagano Prefecture has propelled a small revolution in carcass and meat processing. It is now possible for the butchering to be done in situ, rather than wait for animals to be brought for processing.

The truck is fitted with a chiller, accessible via a loading platform. It has a capacity of five wild hog and deer carcasses. An annexe has provisions for flaying and gutting to effect skin removal and offal collection and storage. As and if required, captured live animals can be stunned, slaughtered, hoisted, exsanguinated, gutted, cleaned, quartered, carved and temporarily stored to retain their freshness.

The custom-built truck with an on-road price of 21.75 million yen (USD197,000 at 2017 exchange rates), meets the five-fold objective of effective territorial coverage, hygienic meat and by-product processing, animal rights and well-being, state-of-the-art technological innovation and meeting societal and economic expectations. (20)

According to data available with the agriculture ministry, as of June 2016, Japan had 172 abattoirs nationwide. However, there was no expeditious and effective way to transport carcasses from the point of cull or capture to cater to the spiraling demand from 881 restaurants in Tokyo and its environs, specializing in and serving gibier meat cuisine.

With such proactive measures taken and more effective wildlife cull and kill management, the local governments of the prefectures overrun by Kyon deer are confident and optimistic of popularizing kyon venison and leather with greater efficiency than before.

Efforts are also underway to ensure carcass traceability in the form of “cut charts, store labels and bar codes which identify the animal, place, date and manner of slaughter and other relevant information, to allay customer apprehension and concern.

Every individual and organization connected with the industry, in the meanwhile, continues to work concertedly, to expand the market by stringently adhering to standards and providing customer education through proper disbursement of information. (21)(22)

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CORRIGENDUM

Due to oversight, in Page No.39 of March, 2023 issue of JILTA, there was a spelling mistake in the title of the article.

Kindly read it as “**Toad**” instead of “**Tod**”.

Inconvenience caused is regretted.

Read and Let Read

JILTA

(Encapsulated Leather Knowledge)



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FOOTWEAR

Utilization Of Fibre-board Products In Shoe Manufacture

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The manufacturing techniques of three types of fibre-boards are illustrated. How the quality and end use of the products vary according to the type and proportion of the raw materials and processing chemicals used is dealt with.

For insoles, apart from the manufacturing process, the physical-mechanical and wear-hygienic and actual wear-properties are discussed

Different types of stiffeners used in shoe manufacture are described and also the advantages and disadvantages of thermoplastic stiffener in particular.

The physical tests carried out on four different types of materials (insoles) are tabulated and compared

Shoe manufacturing technologies have been fundamentally transformed and developed further over the past 20 years. In keeping pace with this development, variation in structural materials has been attempted.

Leather substitute materials produced for a wide field of application provide immense possibilities of improvement in shoe production—besides the continually progressing mechanization and automation—with regard to increased productivity, production of a wide range varying in appearance, physical and mechanical characteristics and wear properties.

In this context, leather substitutes gain more and more significance.

The quality of various artificial leathers employed in the shoe industry advances parallel to the development of

the plastics industry. Although artificial leathers in general do not possess properties that would enable their universal application, nevertheless, for a given particular purpose, they are far more suitable than natural leather. Such properties for instance in the case of fibre-board products are the heat resistance, uniform thickness, homogeneous structure, regular shape, better processability, etc.

The development of shoe manufacturing technologies resulted in a fundamental change in the utilization of fibre-board products in two fields.

At present insole materials based on fibres are divided into three major groups:

1. Insole materials based on leather fibres.



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- 2 Insole materials based on alpha-cellulose fibres.
- 3, Insole materials based on a combination of leather and alpha-cellulose fibres.

Insoles Based On Leather Fibres

In the manufacture of insoles based on leather fibres, quality, usability and other properties of the finished product depend on the quality and composition of the leather fibres used. As for the raw material, differences exist between the properties, characteristics of chrome tanned and vegetable tanned leather fibres. Hydrophilicity, elasticity, strength and heat resistance of chrome tanned leather fibres are higher than those of vegetable tanned leather fibres; however, their plasticity is much lower, resulting in lower mouldability. Also the properties of chemically modified chrome tanned leather fibres are quite different.

During vegetable tanning of collagen fibres, chemical bonds are formed between the tannic acid and the collagen—one portion of the tannic acid is adsorbed on the surface of fibre-structure elements and is deposited into the inter-fibrillar spaces. The fibres become stiff and brittle by this heavy saturation. Also the heat sensitivity of vegetable tanned leather fibres must be considered, since it may give rise to difficulties not only in the production of the artificial leather but also when processed in shoe manufacturing.

In the process of insole manufacture, leather fibres are milled and defibrillated in an aqueous medium, subsequently dyestuffed fat liquored, natural or

synthetic latex binders added and other auxiliary agents such as stabilizers, coagulants, etc. added to the milled product. The fibre-board is formed on a filter trough or a long sieve paper machine, dewatered and dried at a suitable temperature.

The quality of the finished product is also affected to a large extent by the nature and quantity of the binding agent and fat substances, in addition to the fibre raw-material.

Insoles Based On Alpha-cellulose

In the manufacture of insoles based on alpha-cellulose, the quality of the insoles is mostly governed by the nature of the cellulose fibres used. The cellulose itself is produced from various plant raw materials comprising different incrusting substances, which are removed by chemical treatment—the so-called digestion or cooking process. The alpha-cellulose content increases on the removal of foreign matter. Alpha-cellulose is a chemically pure and non-injurious substance, which does not injure the foot and causes no allergic problems.

The resistance of alpha-cellulose against bacteria is higher than that of leather fibres. In addition to their strength, heat stability, dimensional stability—including the effect of moisture—are better than those of leather fibres and their water uptake capacity is favourable.

To produce insole material, alpha-cellulose of purity 92 to 96 per cent is used. Preferably soft raw material is milled and defibrillated in aqueous medium, then various auxiliary agents, such as antioxidants, antifoaming agents,



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fungicides etc. are added to the fibre suspension. The latter is transferred to a sheet-forming paper machine where sheets are made in accordance with the paper-manufacturing technology. After dewatering, the still wet cellulose web is impregnated with heat-sensitized synthetic latex, or with a blend of synthetic and natural latex/wet-rub process/whilst interstitial domains, inclusions are formed between the fibres, which are responsible for the porosity of the finished product. The impregnated cellulose web is passed through a drying drum at 90 to 110°C, when the binder precipitates on the fibres. In this way, the required physical and mechanical properties, structural uniformity, resistance against moisture and wear are built on the one hand and hygienic properties of the finished product are warranted on the other. Most frequently the binding agent is an aqueous dispersion of chlorobutadiene caoutchouc adjusted with suitable auxiliary agents prior to use.

In case of the so-called 'blending-box impregnation', or the coagulation process, the binder and other auxiliary agents are admixed directly to the fibre suspension similar to the production of fibre-boards.

Thus a product of somewhat higher specific gravity and lower porosity is obtained.

Insoles From Combination

In insoles made from both leather fibres and alpha-cellulose fibres, the favourable properties of the single component are combined. If properly mixed, the more elastic and plastic character of the leather fibre, the stiffness

and strength-increasing ability, the high dimensional stability of the cellulose fibre, even on the effect of moisture, could be built in the boards. Also the good resistance of alpha-cellulose fibres against bacteria and perspiration is a well recognized factor in blends.

In production of insoles, the two fibre components are milled and defibrillated in water, blended in a predetermined proportion, subsequently dyed, fat liquored and natural or synthetic binders and other auxiliary agents admixed to the fibre suspension. Production of the sheets takes place as described previously.

The quality of the finished product is greatly affected by the blending ratio of fibre components,

Based on experience gained during many years, quality specifications have been determined by researchers and producers for insole materials in regard to

1. Physical-mechanical and
2. Wear-hygienic and wear-physical properties.

Physical-mechanical Properties

The most important task of an insole is to create a basis for the upper formation. First of all the insole must be well fitted to the last and must accurately take over the shape of the last during pressing. The insole must also permanently retain its dimensions and endure mechanical impacts without damage. If the insole exhibits inadequate fitting to the last, the quality of the finished product will be unsatisfactory; moreover full productivity of the modern lasting machines cannot be exploited.

Other important properties are flexibility and elasticity. Nowadays flexibility is a particularly important quality feature of all kinds of footwear, and must be retained even after a longer wear-period. The insole must be flexible because of the up and-down motion of the foot.

Stiffness of the insole affects the performance of the finished shoe even in the case of cemented soles. And insoles intended for welted footwear and through-sewn shoes have to be even more flexible.

Flexibility and elasticity can be tested by measuring their modulus.

Volume Is Index Of Lightness

Lightness may be characterized by the volume; in this regard fibre-board products are particularly suitable.

Another desired property—which contributes to the wear-comfort of shoes is the plastic deformation of insoles, as a consequence of natural mechanical effects during the wear period. This wear-physical property is based upon the fitting of the insole to the shape of the foot.

Plastic deformation can be established by the permanent set, where the degree of recovery to the original shape is measured after an elongation load.

If the permanent set is too high, a drastic plastic deformation takes place; further loading causes a still higher deformation, which manifests itself in a low shape-stability. However, if the permanent set is too low, the material fits less to the shape of the foot.

An important property is the internal structural strength of the insole material. This will be clear if one considers the

manifold exposures during processing—lasting pulling, cementing—to which the insoles are subjected. In addition the insole must be resistant to mechanical bending and abrasion stresses during walking. Layer separation, rough and heavy folds, cracks, etc. are inadmissible. These properties are tested by measuring the tensile strength and the permanent flexing resistance.

Effect Of Moisture

The shape of the shoe is strongly deformed by the change of dimensions resulting from the effect of moisture and consequent dimensional changes of the insole as well as by the shrinking, which takes place in heat-setting.

For this reason dimensional change from the effect of moisture is a significant characteristic and is tested by the index of linear dimensional change.

A good sewability and seam strength property is required in case of through-sewn, Goyser and Goodyear footwear. These are characterized by the stitch tear strength.

Direct moulded-on soles and direct vulcanized soles assume increasing prominence with the efforts towards automation and this also requires high heat-stability from the insole materials. Insoles made of fibre-board are particularly suitable for this purpose or more preferably those based on alpha-cellulose fibres, plus chrome tanned leather fibres and also insoles made of alpha-cellulose fibres. Heat-stability is tested by the degree of shrinking taking place between 120° and 150°C.



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If no sock-lining is employed, the insole material must show good resistance to abrasion and rubbing. Information on these properties is available by testing the dry and wet rubbing fastness.

Wear-hygienic Properties

The insole must satisfy some hygienic requirements: first of all, it must take up and transmit rapidly the moisture (sweat) produced by the foot.

The more moisture transmitted during wearing, the more comfortable is it to wear a shoe.

Thus, the insole's hygienic properties can be characterized by the uptake and transmission of foot perspiration.

In use, the insole materials are in contact with non-liquid water, and hence the hygienic properties mentioned depend on the water vapour absorption and desorption of the insole. The latter property is of particular importance, since after taking off the shoe, the insole has to lose a considerable part of the moisture within 6 to 8 hours at room temperature and a relative humidity of 55 to 60 per cent. This means, the shoe must become dry overnight.

The insole's lifetime is affected decisively by the sweat-fastness. Salts, acids and other substances being present in the sweat result in the hardening and ultimately breaking of the insole. Various suitable measuring methods are available to evaluate the sweat-fastness.

The breathability of insoles is of minor importance, according to recent results.

Foot Ventilation

Ventilation of the foot takes place mainly as a consequence of a suction effect during walking which is as important as the air-permeability. The speed of the air motion around the shoe is about 2 m/sec. during walking—according to experimental results. The suction effect increases the removal of foot perspiration from the shoe. For this reason, the shoe should not fit tightly on the foot, otherwise the necessary space of motion is missing.

No substances or shoe components that can injure the foot should get separated from the insole during wear. On the contrary, the insole material has to include chemical substances which prevent the growth of bacteria/fungus growth/and extend the lifetime of insoles.

In Tables I and II the physical-mechanical characteristics and wear-hygienic test values are given for the three types of insole materials.

Types of Insoles

And now some specific types of insoles are briefly mentioned.

For more than 10 years, insoles are used for ladies' shoes in particular, the waist and heel parts of which consist of hard plate, the fore-part of artificial leather based on fibre-board, or on alpha cellulose.

It is most likely that insoles with plastics waist/heel-part will penetrate the market to some extent in the future. This combination has substantial advantages at the heel fastening over the conventional heel-part of the insole hard plate,

Table I
Physical-mechanical Test Values of Various Insole Materials

Serial Number	Type of insole	Thickness mm	Dimensional accuracy/de- viation at 100 pairs, %	Flexing-elasticity modulus kg/sq cm	Volume g/sq cm	Tensile dry	Strength wet/after 2 hours
1. Leather Insole							
—belly		1.5	100	1950—2000	1.0—1.05	1.8—2.0	—
—neck		1.5	100	1250—1500	1.0—1.05	1.8—2.0	—
2. Alpha-cellulose insole material							
		1.5	100	750—900	0.65—0.68	1.5—1.8	1.9—1.0
3. Insole material consisting of leather fibres and alpha-cellulose fibres							
—70% of chrome tanned leather fibre + 30% Alpha-cellulose fibre		1.5	90	650—700	0.68—0.78	0.95—1.1	0.7—0.8
—50% chrome tanned leather fibre + 50% alpha-cellulose fibre		1.5	95—96	700—750	0.70—0.80	1.0—1.15	0.75—0.85
4. Insole material made of chrome-tanned leather fibre							
		1.5	30	600—750	0.72—0.80	0.85—1.0	0.65—0.80



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Table I, continued

Type of Insole	Tear Strength kg/mm	Elongation at break %	Permanent set %	Permanent flexing resistance after 10,000 flexes+ no cracks-cracks	Linear dimensional change after soak- ing for 2h %	Dry heat stability 120° 150°C %
Serial No. 1						
— belly	12-16	22-25	8.0	—	0.5-0.6	—
— neck	20-25	20-25	7.0	—	0.5 0.6	—
Serial No. 2						
	5.5-6.5	10-14	5-7	10,000 +/	0.6-0.8	1.0 1.2
Serial No. 3						
	4.0-5.0	25-27	8-10	10,000 +/	2.0-2.3	2.5 4.0
	4.5-5.5	20-25	6-8	10,000 +/	1.8-2.0	2.0 8.5
Serial No. 4						
	3.0-3.5	30-35	12-14	10,000 +/	2.5-3.0	3.0 5.0

Table II
Wear-hygienic Test Values of Various Insole Materials

Sl. No.	Type of insole	WV absorption in sawdust of 48% moisture content % after 8h	WV absorption in sawdust of 48% moisture content % after 24h	WV desorption % at 55% moisture content after 8h	WV desorption % at 55% moisture content after 24h	WV uptake in % after 8h	WV uptake in % after 24h	Tensile strength kg/sq.mm in original state	Elongation at break % in original state
1.	Leather Insole								
	— belly	19.5	29.2	23.4	12.7	5.8	16.5		
	— neck	17.3	27.6	22.1	11.7	5.5	15.9	1.95	21.0
2.	Alpha-cellulose insole material	19.05	31.25	23.20	5.70	9.05	25.55		
		22.35	34.50	25.25	6.35	9.35	28.15	1.55	13.5
3.	Insole material consisting of leather fibres and alpha-cellulose fibres								
	— 70% chrome tanned leather	19.85	26.24	19.99	9.43	6.25	16.81	1.02	25.5
	— 30% alpha-cellulose fibre	20.00	27.14	20.49	9.54	6.65	17.60		
	— 50% chrome tanned leather	25.92	31.48	24.22	11.11	7.26	20.37	1.12	22.0
	— 50% alpha-cellulose fibre	23.85	30.27	22.73	10.09	7.94	20.18		
4.	Insole material of chrome tanned leather fibre	10.5	20.0	16.5	7.99	3.5	12.1	0.94	35.5
			22.1	18.2	9.80	3.9	12.3		

Table II/continued

Sl. No.	Resistance to sweat												Water uptake after 30 min 120 min	
	Acid Solution				Neutral		Alkaline solution		Alkaline solution		Alteration of strength and elongation in % treated in neutral solution			
	A	B	A	B	A	B	A	B	A	B	A	B		
1.	1.62	12	1.71	14	1.73	15	-16.8	-43.0	-12.3	-33.4	-11.3	-28.6	20-22	26.5-28
2.	1.50	12.5	1.58	14	1.53	14	-3.2	-0.74	+1.93	+0.37	-1.28	-0.37	14-19	25-30
3.	0.94	23.5	0.95	23.5	0.95	24	-7.55	-7.75	-6.85	-7.75	-6.8	-4.1	15-17	20-23
	1.07	21	1.07	23	1.15	22	-4.45	-4.55	+1.89	+4.55	+2.66		15-20	22-25
4.	0.85	30	0.87	31	0.86	30.5	-9.6	-9.1	-7.45	+7.26	-8.45	-9.1	12-15	19-21

A = tensile strength, kg sq mm

B=elongation at break, %



Another wide field of utilization for fibre-boards is the stiffeners. The development of up-to-date stiffener materials was parallel to that of modern shoe production technologies. In addition to conventional leather stiffeners, used in small quantities, the following other materials find application in the shoe industry :

- i. pre-moulded fibre-board counters
- ii. fibre-board counters mouldable by hand
- iii. thermoplastic counters on a fabric substrate
- iv. counters without fabric substrate/ moulded or non-moulded, made of various plastics by injection moulding
- v. counter materials to be worked in by immersion
- vi. thermoplastic counter materials from leather fibre or cellulose fibre.

The last type is discussed in detail.

Pre-moulded Fibre-board Counters

Raw material for the fibre-board counters is a suspension of chrome-tanned and vegetable-tanned fibres of a suitable milling grade. Mixtures of natural latex and co-polymers of vinyl-acetate-acrylate are used as binding agents. The sheet is made by the known paper technology/filter-through method/. Counters are cut from the finished sheet, then skived, polished and coated on both sides with a thermoplastic adhesive in a suitable equipment.

The adhesive film on the counter

surface becomes tacky on the action of heat and joins under pressure to the upper leather and lining leather to provide a structural strength of the three components.

It has been justified by processing experiences that with an adequate fibre composition, adhesive combination and properties of the synthetic resin used, the structural constitution of the stiffener material could be varied.

Two Processing Methods

Two processing methods are evolved. In the first method the coated and skived stiffeners are pre-heated under infra-red lamps for 10 to 20 seconds, then inserted between the lining and upper leather and moulded on an Omic or Pegase machine with heated lasts at 90 to 100°C under a pressure of 3 to 5 kg/sq cm for 10 to 15 seconds, when the stiffener is simultaneously bonded.

In the other method, the thermoplastic counter is inserted between the lining and upper leather, activated in an apparatus or a rotating chamber, heated by steam, and placed between the two moulding stations of the machine. Moulding takes place in cold moulds under a pressure of 3 to 5 kg/sq. cm.

In using thermoplastic stiffener materials, the fact that these are not universally suitable to all upper leathers has to be taken into consideration. Adhesion is not satisfactory with upper leathers of a high fat content. In addition, heat stability is required to prevent shrinkage and discolouration at the actual processing temperatures.



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Also the following must be considered when using thermoplastic, fibre-board based counter materials :

The back-closing line of the upper must be shaped in another way as on shoes with moulded fibre-board counters

Adjustment of the skiving must be modified during the manufacture of the moulded piece

At shaping up the heel-part of the upper thickness other than those being on a fabric substrate must be considered (e.g. thickness of counters on a fabric substrate for ladies' shoes is 1.0 mm, that of thermoplastic counters 1.4 to 1.6 mms).

Advantages Of Thermoplastic Counters

In addition to economic advantages, thermoplastic counters have the following favourable properties :

They provide a stiff-elastic, slim and smooth counter part

They exhibit an excellent shape-stability

They are lighter than moulded and pressed counters

Their processing is simpler

Their space requirement is smaller when stored

Less mould and sizes are necessary. No care need be taken on the separate working of right and left counters.

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ORISSA LEATHER UNITS TO BE IMPROVED

The District Industries Centre, Puri, has initiated a programme for the development of leather units. For this purpose, measures have been undertaken to develop leather units in three growth centres where there is a concentration of cobbler artisans, mainly at Daspalla, Bhubaneswar and Puri.

At Daspalla the existing co-operative society is being strengthened with an additional fund of Rs. 55,500. A common service centre-cum-raw material bank is being opened in collaboration with the Leather Development Corporation. It has been decided also to start an intensive flaying cum-hide collection centre during the current financial year. At Bhubaneswar and Puri, similar projects are being undertaken and the Bhubaneswar cobblers' co-operative society has been allotted Rs. 18,000 by the Khadi and Village Industries Board.

—Business Standard

WILL INDIA MANAGE TO GROW AT 6.8% IN FY24?



The external environment has worsened further. While the Finnish economy entered into a recession, Swedish economic growth also dipped. The Finnish gross domestic product (GDP) dropped 0.6 per cent in October-December, 2022. It was the second quarter of negative growth, which is a technical definition of recession.

Swedish GDP fell by 0.2 per cent in the fourth quarter of 2022, compared to the same period a year earlier. However, it was still not in recession. While Finland and Sweden don't have much trade with India, it may have repercussions for the European Union.

The European Central Bank has already hinted that it may raise interest rates further to cool inflation. Elsewhere, the UK economy narrowly avoided recession after its GDP was flat in the fourth quarter of 2022. The Chinese authorities were conservative when they pegged 2023 economic growth at five per cent, one of its lowest targets in decades.

However, the target was more than China's economic growth of three per cent in 2022. The growth in 2022 was lower than the target of about 5.5 per cent as Covid restrictions, a property market lull, government crackdowns on private enterprise, and the United States-China trade war pulled down growth. There are all possibilities that the Federal Reserve will raise interest rates further to tame inflation.

Core personal consumption expenditure deflator – a measure of the spending on goods and services (excluding food and energy) by people of the United States – rose by 0.6 per cent in January 2023 against an estimated 0.4 per cent on a month-on-month (MoM) basis. There has also been an upshot in personal spending by 1.8 per cent on MoM basis against an estimated 1.4 per cent in January 2023.

The inflation expectation of the University of Michigan also remained elevated. The new home sales data, too, pointed towards revival with a 7.2 per cent MoM increase against an estimated 0.7 per cent increase in February this year. The markets are expecting the US Federal Reserve to hike rates by 25-50 basis points (bps) in its Federal Open Market Committee (FOMC) meeting to be held on March 21-22.

The US, European Union, China, and the UK together accounted for around 40 per cent of the total exports from India during the first 10 months of the current financial year. India may have to hugely rely on domestic consumption to drive growth as the external environment as cited above is facing a slowdown.

In this connection, the crucial issue is whether a 6-6.8 per cent economic growth rate with 6.5 per cent as baseline scenario for 2023-24 as projected by the economic survey will materialise or not. Ranen Banerjee, the government sector leader at PwC India, said the projected growth rate will be at risk if the external environment continues to be weak or further worsen and the growth rate is likely to be towards the lower end of the projected range or even lower.

“There are too many uncertainties at play with new risk terms being coined every day like the perma crisis and polycrisis. “It reflects the increasingly uncertain world we are in and this makes growth projections even in the near term very uncertain,” he said.

A crisis refers to a temporary period of downturn, but the term permacrisis denotes a long and permanent period of crisis as a result of different factors that come together or follow each other. The term was coined around 2022 when, after the Covid-induced crisis, the invasion of Ukraine by Russia led to a slump in the economic and social situation due to rise in prices of oil, gas and other products.

The polycrisis refers to a cluster of interdependent global risks which create a compounding effect in a way that their overall impact exceeds the sum of their individual parts. Anil K Sood, co-founder of the Institute for Advanced Studies in Complex Choices, said India's economic growth is largely driven by domestic consumption and investment.

Household consumption is facing significant headwinds, as the households (urban as well as rural) and MSMEs are the ones who have absorbed the output losses caused by the

pandemic. Household savings rate continues to be low, as real earnings have not been growing for many years now.

The burden from the reduction in subsidies is also being borne by them. Consequently, they have a limited ability to leverage their equity, even if credit is made available. MSMEs to face similar constraints – loss of risk capital caused by the pandemic and earlier demonetization, he said.

In this scenario, he said the government continues to be a reluctant contributor to India's economic progress and is expecting the large private sector to do the heavy lifting. Other than roads and railways, the government capital expenditure has been growing at a slow pace, Sood pointed out. "As we know, the Indian family businesses don't have adequate capital, as they are just too small to raise equity for investment in large infrastructure projects or invest ahead of demand. "Most engineering and construction firms prefer EPC contracts over BOT or BOOT contracts," he added.

A win-win arrangement is one where the private sector drives productivity through innovation and the government takes risk of investment. "Once we can create this virtuous cycle, we do not have to choose national champions through policy patronage," he added.

While the government is taking pride in being the fastest-growing major economy at 6 per cent, he believed that India can grow at seven per cent or more. "For that to happen, the government must become a willing investor in India's economic progress. "Fiscal consolidation can wait for another couple of years, and the government debt can become self-liquidating with growth in government revenue.

"If not, I expect the growth to be closer to 6 per cent in the coming year," Sood said. Bank of Baroda Chief economist Madan Sabnavis said the slowdown in the EU will definitely affect India in terms of coming in the way of growth in exports. "This can be taken as given since even though trade with Finland and Sweden individually may not be high, in a state of declining exports, would become significant," he said.

Sabnavis, however, pointed out that India is a domestic-oriented economy and hence GDP growth will be driven largely from within which he expected to be stable. "With global commodity prices cooling off, our trade deficit will not widen that much even though export growth is retarded.

"Therefore, even though our growth rate will slow down from 7 per cent to around 6-6.5 per cent it will be reasonable under these conditions. Lower exports will account partly for this decline in growth from seven per cent to 6-6.5 per cent," he said.

Banerjee said while India has a strong consumption engine and a very high government investment lined up, a weakness in the external sector impacts exports and several goods exports are in labour-intensive sectors. On the other hand, the local consumption engine, the economy's high dependence on imported oil and never-ending demand for gold will keep the imports buoyant, he said. "This will put stress on the current account deficit and that is likely to spill over to fiscal too," he added.

(Rediff.com – 22/03/2022)

OLD OR NEW TAX REGIME: WHICH IS BETTER?



'If a taxpayer opts for the new tax regime once, he can only switch back to the old tax regime once in his lifetime.'

Several changes were made to the new income-tax regime in Budget 2023. The old income-tax regime was not tinkered with and is still available. Should taxpayers opt for the revamped version of the new tax regime or stick to the old one?

What happens in the old tax regime?

In the old tax regime, the Assessee can claim a variety of deductions, exemptions, and allowances and thereby reduce his tax liability. The tax-saving investments come with a lock-in and hence tie up the investor's money. This regime can also get complicated.

Why was the new tax regime introduced?

The new tax regime came into force on April 1, 2020. Both individuals and Hindu Undivided Families (HUFs) can avail of it. It was introduced through Section 115BAC of the Income-Tax Act. The central idea was to offer reduced tax rates and simplify the tax system. The overall goal was to encourage greater tax compliance.

Maneet Pal Singh, partner, I.P. Pasricha & Co., says, “The new tax regime offers flexibility to taxpayers to invest their money as they prefer, as there is no mandatory requirement to invest in tax-saving schemes.”

What were its key features when it was introduced?

The new tax regime is based on the ‘lower tax rate but no deduction or exception’ mantra. It does not allow 70 deductions and exemptions allowed under the old tax regime.

What changes did Budget make?

The new tax regime did not find many takers, and hence was revamped in Budget 2023. Slab rates have been reduced. The basic exemption limit has been increased from Rs 2.5 lakh to Rs 3 lakh. A rebate under Section 87A has been introduced due to which individuals having taxable income up to Rs 7 lakh don’t have to pay any tax.

A standard deduction of Rs 50,000 has been made available, which will result in overall savings of Rs 52,500 in tax outgo for a salaried person with income of Rs 15.5 lakh. Finally, the surcharge rate has been reduced from 42.74 per cent to 39 per cent for total income above Rs 5 crore.

Which of the two regimes is better?

The answer is: It depends?

While the changes announced in the Budget definitely make the new tax regime more attractive than its previous avatar, it may not necessarily suit everyone. Those who have a smaller income and don’t avail of many deductions and exemptions will find the new tax regime more attractive.

Suresh Surana, founder, RSM India says, “On the other hand, an individual who claims deduction on interest paid on a

housing loan and avails of other deductions such as Section 80C (life insurance premium, five-year fixed deposit, principal on housing loan, Employee Provident Fund, etc) and 80D (health insurance premium) may still prefer to continue with the old regime.”

MORE INVESTMENT NEEDED UNDER OLD REGIME			
Gross total income (₹)**	Max deduction under old tax regime to break-even (₹) with new tax regime	Tax liability (₹)*	
7,50,000	2,50,000	-	
9,00,000	2,62,500	41,600	
10,00,000	3,00,000	54,600	
12,50,000	3,62,500	93,600	
15,00,000	4,08,332	1,45,600	
17,50,000	4,25,000	2,18,400	
20,00,000	4,25,000	2,96,400	

*At this level of deduction, tax liability (including surcharge and education cess) becomes similar under both regimes (₹). Benefit of standard deduction of ₹50,000 in the new proposed tax regime has been considered in this illustration

Those who don’t have deductions to claim will find the new scheme better.

The bottom line is that each level of income will have its own break-even point. The break-even point is the maximum deduction one must claim under the old tax regime to pay the same income tax under both the regimes. Once this level of deduction is crossed, the old tax regime becomes more attractive.

Which one should you choose?

All experts say that each taxpayer needs to compare the two tax regimes before opting for one of them. Finally, note that the new tax regime has now become the default tax regime. A salaried individual can exercise this option every financial year. Mayank Aggarwal, partner designate,

Luthra and Luthra Law Offices India says: “However, if a taxpayer having income from business or profession opts for the new tax regime once, he can only switch back to the old tax regime once in his lifetime. He will then not be eligible to move back to the new tax regime again.”

(Rediff.com – 13/02/2013)

INDIA'S STEADYING ECONOMY SHOWS SIGNS OF WEAKENING CONSUMPTION



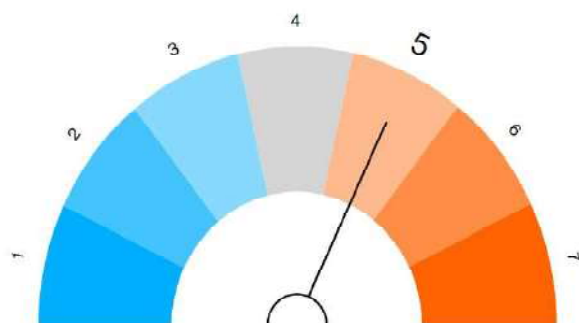
India's economic activity held steady in February though there were early signs of slowing consumption amid concerns of future growth prospects and hawkish monetary policy.

The needle on a dial measuring the so-called animal spirits was unchanged from January when it moved left after picking up speed for the last month of 2022, signaling weakening domestic demand is becoming a concern. Eight high-frequency indicators tracked by Bloomberg showed moderating credit growth, weak tax revenues and a rising unemployment rate.

India's economic growth unexpectedly slowed to 4.4% in the three months to December. Economic expansion may be under pressure as the "full-blown impact" of the Reserve Bank of India's 250 basis point hike in borrowing cost since May gets transmitted to end-consumers, Crisil Ltd., the local unit of S&P Global Ratings, said in a report.

Mixed Economic Activity Signals Keep the Needle Steady

Animal-spirits tracker



Sources: Bloomberg, S&P Global, Reserve Bank of India, Commerce Ministry, CMIE
NOTE: Bloomberg uses power demand, goods & services tax collection data, unemployment rate, S&P Global India's Composite PMI, output price index, order books index, exports and RBI data on loan demand to track the economy's so-called animal spirits. The overall activity reading is generated aggregating the three-month weighted averages of eight indicators against the past 30 months of historical data.

The central bank is seen to raise rates further in its next policy review due April 6 after retail inflation breached the central bank's target for a second straight month in February. The after-effects of the collapse of Silicon Valley Bank as well as troubles at Credit Suisse Group AG, and the risk of heat wave on India's rural economy could also muddy the outlook ahead.

Bloomberg's animal spirits barometer uses a three-month weighted average to smooth out volatility in single-month readings. Here are more details:

Business Activity

Purchasing managers' surveys showed activity in India's dominant services sector climbed at the fastest pace in 12 years. Manufacturing activity expanded at its slowest in four months but remained above the 50-mark. That helped take the composite index to 59 from 57.5 in January.

However, jobs growth was dampened by a lack of confidence in the business environment, said Pollyanna De Lima, Economics Associate Director at S&P Global Market Intelligence. "The degree of optimism recorded in February was the lowest for seven months and below the historical trend as some companies doubted demand would remain this resilient."

India's Private Sector Activity Shows Mixed Signs

Score is based on the three-month weighted average



Source: S&P Global
NOTE: Index reading above 50 indicates growth

Exports

Exports fell 8.82% in February from a year ago, while imports dropped 8.21% — the biggest decline in more than two years.

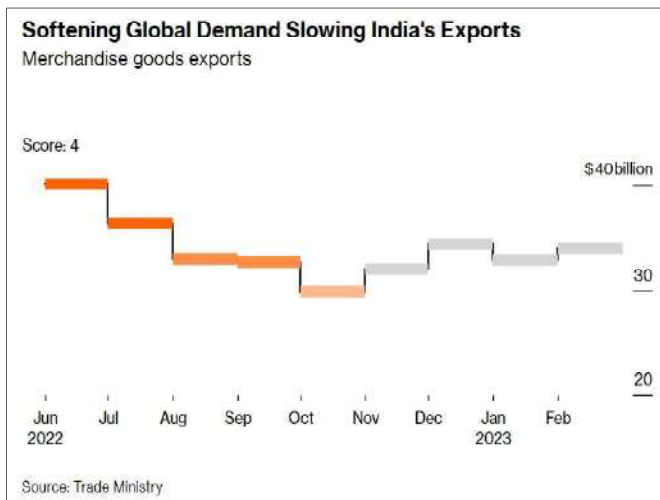
"Slowing core exports and imports indicate softening global and domestic demand," said Madhavi Arora, economist with Emkay Global Financial Services Ltd. However, Arora lowered her current account deficit forecast for the fiscal year



ILTA
Since 1950

Economic Corner

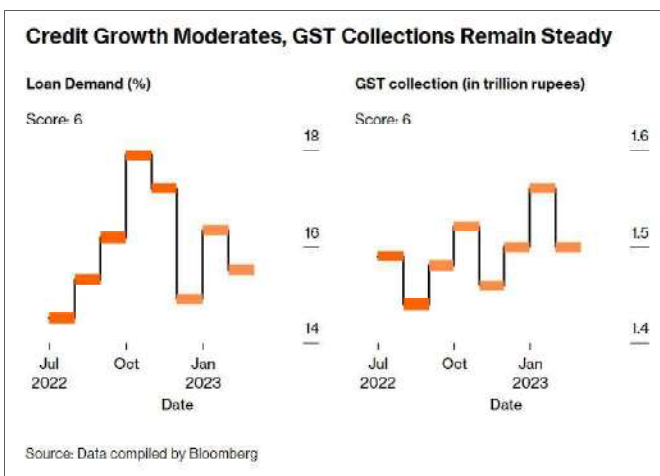
ending March to 2.5% of the gross domestic product, from 2.6% earlier on robust services exports in the last few months.



Consumer Activity

Liquidity in the banking system is tightening, and credit growth moderated to 15.52% in February, from 16.33% in January, central bank data showed.

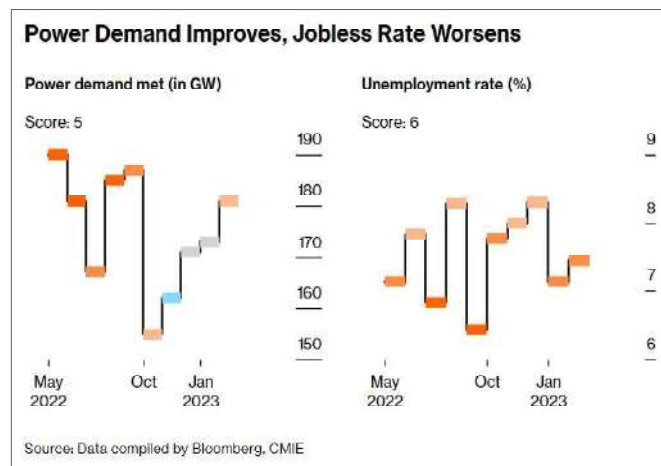
Goods and services tax collections, which help measure consumption in the economy, fell to 1.49 trillion rupees (\$18.1 billion) in February from 1.56 trillion rupees in January though it was 12% higher from a year ago. New vehicle registrations rose 16% in the month, according to data from the Federation of Automobile Dealers Associations. But passenger vehicle sales growth slowed to 10.9% year-on-year, from 22% rise seen a month ago.



Market Sentiment

Electricity consumption, a widely used proxy to measure demand

in the industrial and manufacturing sectors, improved. Peak demand in February rose to 181 gigawatt from 173 gigawatt a month ago amid predictions of hotter weather over the coming months. India's unemployment rate climbed to 7.45%, from 7.14% a month ago, according to data from the Centre for Monitoring Indian Economy Pvt.



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(bloomberg.com – 21/03/2022)

RBI DOES NOT EXPECT INDIA TO SLOWDOWN LIKE GLOBAL ECONOMY IN FY23, RAISES CONCERN ON INFLATION



The Reserve Bank of India (RBI) does not expect India to slow down in the fiscal year FY23, unlike the global economy. It believes the country will maintain its pace of expansion by end of the financial year. Hence, RBI is optimistic about India. However, the central bank did raise its concern about inflation,

especially core inflation. In its March 2023 bulletin, RBI said, “unlike the global economy, India would not slow down – it would maintain the pace of expansion achieved in 2022-23.”

It added, “we remain optimistic about India, whatever the odds.” According to RBI’s bulletin, even as global growth is set to slow down or even enter a recession in 2023 as global financial markets wager, India has emerged from the pandemic years stronger than initially thought, with a steady gathering momentum since the second quarter of the current financial year.

RBI said, “year-on-year growth rates do not reflect this pick-up of pace because by construction they are saddled with statistical base effects, and instead suggest a sequential slowing down through successive quarters of 2022-23 to an unsuspecting reader.”

Additionally, RBI highlighted that Indian economy has remained resilient amidst high tides of uncertainty. The second advance estimates (SAE) of national income released by the National Statistical Office (NSO) on February 28, 2023 indicate that the recovery from the pandemic was stronger than earlier believed, led by private consumption and supported by a rebound in government consumption during 2021-22.

Also, it said, “the pickup in export growth and a large easing of import growth reduced the drag from net exports. On the supply side, the improvement was more broad-based, led by services and followed by industry.” India’s GDP which recorded a growth of 4.4% in the Q3 of the current fiscal, is expected to rise to 7% for the overall FY23. In FY22, the economy posted a growth of 9.1%.

At present, the available forecasts of India’s real GDP growth for 2023-24, including those of the RBI, settle between 6% and 6.5%. But RBI continues to flag concerns related to consumer price index (CPI) inflation. In its State of Economy topic, RBI said, “consumer price inflation remains high and core inflation continues to defy the distinct softening of input costs.”

As per RBI, headline inflation eased across most AEs and EMEs; nonetheless, it remains elevated and well above targets in most economies. But elevated core inflation remains a major concern in most economies. India’s CPI inflation eased slightly at 6.44% in February 2023, however, was higher than expected. Also, this inflation reading would be the second consecutive month where it has stayed above RBI’s upper tolerance limit of 6%.

(www.livemint.com – 21/03/2022)



-:JILTA:-

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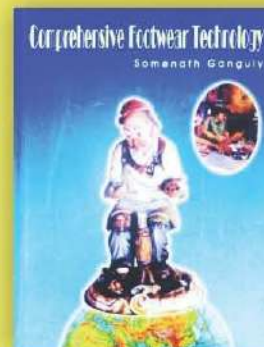
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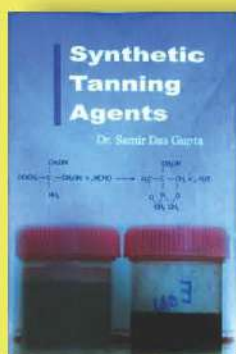
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Indian Leather Technologists' Association

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

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History and Activities of Indian Leather Technologists' Association

Registration No. KOL RMS/074/2022-24

The Indian Leather Technologists' Association (ILTA) was founded by Late Prof. B. M. Das, the originator of Das-Stiasnay theory and father of Indian Leather Science on 14th August' 1950. The primary objectives of the oldest Leather Technologists' Association which celebrated its Diamond Jubilee year in the 2010, are:

- To bring all concerned with the broad spectrum of the leather industry under one umbrella.
- To organize seminar, symposium, workshop in order to create information, knowledge and latest development for the benefit of all concerned. To offer a common platform for all to interact with each other in order to understand each other's problems and prospects.
- To publish monthly journal as a supplement to those above objectives. The monthly journal of ILTA is known as journal of Indian Leather Technologists' Association and is the most widely circulated technical journal concerning leather technology.
- To publish text books for the benefit of students at various levels of study, for the researchers and industry.
- To have interface between urban and rural sector.
- To assist Planning Commission, various Government Institutions, Ministry and autonomous bodies to formulate appropriate policies acceptable and adoptable to the industry.
- To organize practical training and to provide skilled manpower and to motivate good students for study.
- To conduct activities related to the growth of the export of leather and leather goods from India.

ILTA also organizes Prof. B. M. Das Memorial Lecture every year during the Foundation Day Celebrations on 14th August and Sanjoy Sen Memorial Lecture on 14th January, the birthday of our late President for several decades. Many reputed scientists, industrialists and educationists have delivered these prestigious lectures. Foreign dignitaries during their visits to India have addressed the members of ILTA at various times.

ILTA have published the following books:

1. An Introduction to the Principles of Physical Testing of Leather by Prof. S. S. Dutta
2. Practical Aspects of Manufacture of Upper Leathers by J. M. Dey
3. An Introduction to the Principles of Leather Manufacture by Prof. S. S. Dutta
4. Analytical Chemistry of Leather Manufacture by P. K. Sarkar
5. Comprehensive Footwear Technology by Mr. Somnath Ganguly
6. Treatise on Fatliquors and Fatliquoring of Leather by Dr. Samir Dasgupta
7. Synthetic Tanning Agents by Dr. Samir Dasgupta
8. Hand Book of Tanning by Prof. B. M. Das

ILTA presents awards in the name of Prof. B. M. Das Memorial, Sanjoy Sen Memorial and J. M. Dey Memorial Medals to the top rankers at the University graduate and post graduate levels. 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). From the year 2023 ILTA has started to present a Scholarship namely Prof. Moni Banerjee Memorial Scholarship to a Student of B. Tech / M. Tech Leather Technology who is meritorious but financially crippled.

ILTA is the Member Society of IULTCS (International Union of Leather Technologists' and Chemists Societies) which is a 125 years old organization. The International Congress of this union is held in different locations of the world once in two years. In its 125 years history, for the first time the Congress was held in January 1999 outside the developed countries and that too in India at CLRI, Chennai. Indian Leather Technologists Association organized the Congress under the able leadership and guidance of Late Sanjoy Sen, the then President of ILTA and IULTCS and Dr. T. Ramasami, the then Vice-President of ILTA and Director, CLRI, Chennai. In 2017 IULTCS Congress was successfully held again at Chennai, India for the second time. In order 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 fairs at Kolkata from 1977, Siliguri from 1992 and Durgapur from 2010. To help the tiny, cottage and small-scale sectors industries in marketing, LEXPO fairs give the exposure for their products. Apart from Kolkata & Siliguri and Durgapur, ILTA have held LEXPO at Bhubaneswar, Gangtok, Guwahati, Jamshedpur and Ranchi. In commensurate with the time, demand and new perspective of the modern leather users, ILTA has started to organize LEXPO at Kolkata from 2022 in a new shape with the Manufacturers and Exporters of Leather Goods from all over India.

ILTA has celebrated its Golden Jubilee with a year-long programme from 14th August' 2000 to 13th August' 2011 along with the first conference of South East Asian Countries at Netaji Indoor Stadium, Kolkata.

ILTA has also celebrated its Diamond Jubilee with a year long programme from 14th August' 2010 to 13th August' 2011 which included National Seminars, B. M. Das Memorial Lecture, Sanjoy Sen Memorial Lecture, Moni Banerjee Memorial Lecture, Y. Nayudamma Memorial Lecture and 3 day's AICLST (Asia International Conference on Leather Science and Technology) at Hotel 'The Stadler' at Salt Lake City, Kolkata.

The Association's present (as on 31.03.2023) strength of members is around 550 from all over India and abroad. Primarily the members are leather technologists passed out from Govt. College of Engineering and Leather Technology – Kolkata, Anna University – Chennai, Harecourt Butler Technological Institute – Kanpur, B. R. Ambedkar National Institute of Technology – Jalandhar and Scientists and Research Scholars from Central Leather Research Institute (CLRI).

In order to strengthen its activities, ILTA have constructed its own six storied building at 44, Shanti Pally, Kasba, Kolkata – 700107, West Bengal, India and have named it as "Sanjoy Bhavan".

This Association is managed by an Executive Committee duly elected by the members of the Association. It is absolutely a non-profit making voluntary organization working for the betterment of the Leather Industry. None of the Executive Committee members draws any remuneration for their services rendered but they get the satisfaction of being a part of this esteemed organization.



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