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Our Activities

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

Indian Leather Technologists' Association

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

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JOURNAL OF INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION (JILTA)

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

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Well thought plans are needed to tackle onslaught of COVID 19

We are on completing a year of one of the strictest lockdown for COVID 19 in India, imposed for few months in 2020. Industrial production declined almost 60% in April, while the services side of the economy dropped over 20% in April–June. While stronger government spending limited the overall fall, in the first quarter of FY 2020 the Indian economy posted the first economic contraction since the country began publishing quarterly GDP reports back in 1996. Although dynamics gradually improved from Q2 FY 2020 as the restrictions were lifted, a persistently high new Covid-19 case count through the summer and early autumn, reverse migration of workers from major urban areas back to rural regions and insufficient fiscal stimulus limited the strength of the recovery. Estimates put direct Covid-19 relief spending during the pandemic between 1.5–2.5%, with room for maneuver constrained by the government's weak fiscal metrics amid flagging revenues. Economic panelists now expect the Indian economy will shrink a massive 8.5% in FY 2020, while a provisional estimate released on 7 January by the Ministry of Statistics and Programme Implementation sees a 7.7% contraction. That said, economic conditions have brightened markedly in recent months—as evidenced by PMI data—and the Indian economy, home to roughly 1.38 billion people, is expected to rebound robustly in FY 2021 (April 2021–March 2022). Economists see private consumption expanding roughly 12% as increased consumer confidence; reduced lockdown measures and pent-up demand spearhead a recovery in household spending. Moreover, the services sector will also benefit from increased foreign demand and tourism—hinging on a successful global vaccine rollout. Meanwhile, the government has belatedly opened the spending taps in an FY 2021 budget aimed at boosting capital outlays, which should also provide a much-needed boost to growth next fiscal year. Focus Economics panelists see GDP expanding 9.8% in FY 2021, which would mark the strongest pace of economic growth on record.

Even more positively, the hardship wrought by the pandemic has led to a sudden spurt of activity on the structural reform front, with the government targeting changes in areas ranging from labor laws and agriculture to the banking sector. If implemented, these changes could boost the growth outlook for many years to come. That being said, downside risks do linger amid uncertainty over the evolution of the pandemic, a fragile fiscal position and a patchy track record on structural reforms.

The government plans to vaccinate roughly 300 million people—or around a quarter of the population—by July, which, if achieved, should support both business and consumer confidence at the start of FY 2021. While health experts believe the country is already approaching herd immunity in major urban centers without vaccines, vaccination remains a necessary action for the economy to fully reopen due to the possibility of new variants of the virus emerging. That being said, progress so far has been slow, with only a tiny fraction of the population vaccinated by mid-February. This is likely in part due to the country's vaccine diplomacy efforts: India has distributed millions of doses for free to countries around the world.

On 1 February the government unveiled its FY 2021 union budget, which is predominately aimed at supporting economic growth through increasing capital expenditure—by over 30% year-on-year. While this should provide a meaningful boost to private sector activity and will improve economic prospects over the medium term, the underlying investment push by the central government is less impressive than the headline figure suggests, and total expenditure is only expected to rise a mere 1.0% next fiscal year, which would represent the softest increase in total expenditure on record.

Another key upshot of the budget is reduced spending on rural consumption, likely due to expectations of workers migrating

back to urban centers as the impact of Covid-19 lockdowns fades—a strategic move to enhance the effectiveness of fiscal spending. The government is set to rein in the fiscal deficit in FY 2021 to 6.8% of GDP from a record of 9.5% this fiscal year, according to Ministry of Finance estimates. Focus Economics panelists see the fiscal deficit narrowing to 5.8% of GDP in FY 2021.

Since the outbreak of the pandemic, the government has announced a raft of market-friendly structural reforms, such as the privatization of two state-owned banks and an insurance company, market-based agricultural and labor reforms, and changes to its educational polices and rural property ownership laws. Overall, although these reforms are not expected to provide a short-term spark to economic activity, they set the stage for a more inclusive and stable business environment in both urban and rural regions of the country, which should be welcomed by investors. That being said, the implementation of these reforms will likely aggravate the current beneficiaries of the old system and backlash will be inevitable, although the extent is uncertain. For example, farmers began to protest back in August last year due to the removal of agricultural produce market committees, as this seemed to deprive farmers of a minimum income given prices would now be determined by market dynamics rather than the committees themselves. Moreover, the government has a patchy track record of passing reforms, which leaves some experts pessimistic on its success this time around. Meanwhile, poor infrastructure—the World Bank estimates the infrastructure gap at USD 1.7 trillion—will continue to impede growth.

The government's ability to expedite and successfully embed these reforms will be key to determining whether the Covid-19 crisis—which caused severe economic hardship to many Indians—could end up marking a positive turning point in the country's development trajectory.

We are facing surge of onslaught from another version of COVID 19 once again from the month of April 2021 causing damage to the nation beyond explanation. The Government as well as the nation need well thought out plans to curb the pandemic at its best with minimum interruption to economy and underprivileged citizens. We have come to the strong belief that we have to remain in association of with variants of COVID 19 for long. It is not going to spare us and leave our loveable company. Therefore, any unplanned and unscientific curbs would destroy the national economy and would cause more devastation to the lives of commoners more than disasters by COVID 19. Therefore, Government should come out with purposeful and scientific restricted and segmental plants to curb the menace / surge and keep the ball of economy get rolled on. Unwarranted activities not having any contribution to the economy and healthy livelihood of the citizens of the nation must be stopped and brought to book.

Goutam Mukherjee

Dr. Goutam Mukherjee
Hony. Editor, JILTA

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From the desk of General Secretary

POSTPONMENT OF ELECTION FOR CONSTITUTING THE EXECUTIVE COMMIITTEE OF ILTA FOR THE TERM 2021 – 2023

A long discussion had taken place in the 540th meeting of the Executive Committee on the possibility of conducting the Election for reconstitution of the New Executive Committee of ILTA for the term 2021–2023. After thorough discussion it was concluded that holding election within existing constitutional system of casting of votes by physical presence of the Members under Kolkata, Howrah & both 24 Parganas jurisdiction, is not suitable.

It was therefore unanimously resolved that, due to new wave of acute PandemicCOVID, the present situation to conduct Election for constitution of the Executive Committee of ILTA for the term 2021-2023 is not at all suitable for casting votes physically as per our constitution.

Hence, it was decided by the Committee to postpone the Election process till the situation become normal and suitable to conduct the Election. Till then the present Committee both Central & Regional will continue to function as it is.The committee would review the situation at a regular interval and try to start the Election process as early as possible depending on the situation.

It was also decided that a letter of intimation regarding postponement of Election would be forwarded to all the Members, the Presidents of the Regional Committees of ILTA and RoC as early as possible.

WEBINAR ON "LEATHER FACT"

The Webinar on the topic **"Leather Fact"** was organized by ILTA, which was an initiative of the Seminar Committee of ILTA, on 12thMarch'2021 at 7.00 pm on digital platform.

The Speakers of the day were Mr. Egbert Dikkers, Global Director Sustainability at Smith & Zoom / Chair Leather Naturally and Dr. Wouter Hendriksen, Manager, Research & Development and Zoologist at Nera.

Dr. Buddhadeb Chattopadhyay, Former Principal, Govt. College of Engg. & Leather Technology and MCKV Inst. of Engg. acted as the moderator of the programme.

The programme started with the Introductory Speech delivered by Mr. Susanta Mallick, General Secretary, ILTA followed by the Welcome Address delivered by Mr. Arnab Jha, President, ILTA.

On conclusion of the Welcome Address, Mr. Susanta Mallick, requested Mr. Subir Dutta, Coordinator, ILTA Seminar Committee to introduce the speakers of the program. Mr. Dutta did so and requested Mr. EdbargDikkers, the 1stspeaker of the day to deliver his presentation.

Mr. Dikkers then delivered his lecture titled "**Leather & Circular Economy**" which contained a few highly informative and interesting theories, explanations and proposals regarding recycling of leather. He even explained that how recycled leather products could be branded also.

On conclusion of Mr. Dikkers's presentation Mr. Subir Dutta invited Dr. WouterHendriksen, the 2nd speaker of the day to deliver his speech.

Mr. Hendriksen then delivered his lecture titled "**Leather Biodegradability**", which contained the real definition and process of Biodegradability. He explained the modern theories and chemical analysis for biodegrading of leather. He described the fields where his organization NERA is methodically working for biodegradability.

On conclusion of the lecture Mr. Dutta introduced Dr. Buddhadeb Chattopadhyay, former Principal of GCELT and MCKV Inst. of Engg.and call him on for moderation, sum up of the lectures and handling the Q&A session.

Dr. Chattopadhyay briefly discussed on the holistic views of the modern sustainable technology which is deeply related with the above speeches related to sustainable development and circular economy.

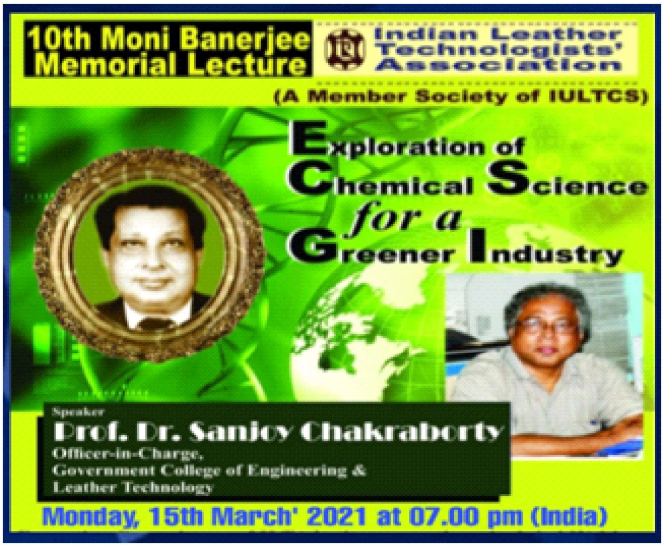
Both the speakers replied a lot of questions from the audience and advised that if any more questions are there, they could send it to them directly and both of them committed for replying them.

On conclusion of the session Mr. Subir Dutta requested Mr. Susanta Mallick to offer Vote of Thanks and with it the programme became over.

There were around 70 - 80 participants over Zoom platform and more than 70 viewers participated on the ILTA HR Face Book Live.

This video recording of the entire program is also available on the official YouTube channel of ILTA **(ILTA Online)** and the website of the Association – www.iltaonleather.org

WEBINAR ON "10th PROF. MONI BANERJEE MEMORIAL LECTURE"



Due to Pandemic COVID this year "Prof. Moni Banerjee Memorial Lecture" was organized by our association through digital platform at 7.00 pm on 15th March' 2021.

The program resumed with the introductory speech delivered by Mr. SusantaMallick, General Secretary, ILTA. Mr. Mallick

briefed the biography of Prof. Moni Banerjeeand called on Mr. Arnab Jha, President, ILTA to deliver the Welcome Address. In his address Mr. Jha recalled late Prof. Banerjee as a national stalwart in leather industry and also the days he had passed with Prof. Banerjee during Banerjee's principalship in GCELT Kolkata.

On conclusion of the Welcome Address, Mr. Mallick announced the name of the following students who stood topper in different Diploma Examinations in 2020 from different institutes and winner of Prof. Moni Banerjee Memorial Award - 2020 :-

a) Mr. Amarta Sen, being topper in the Diploma in Leather Footwear Technology Examination' 2020 from Central Footwear Training Center, Budge Budge.

b) Mr. Danish Akbar, being topper in the Diploma in Leather Goods Technology Examination' 2020 from Central Footwear Training Center, Budge Budge.

c) Ms. Maria Samsi, being topper in the Diploma in Leather Footwear Manufacture & Design Examination' 2020 from Central Footwear Training Institute, Agra.

Mr. Mallick then announced that Dr. Chandana Banerjee (Sarkar), daughter of Late Prof. Moni Banerjee would like to donate a sum of Rs. 2 lacs to ILTA for the development of our association, in memory of her beloved father. Members of ILTA and the audience paid a sincere thanks to Dr. (Mrs.) Banerjee (Sarkar).

Thereafter Mr. Mallick invited Mr. Abhijit Banerjee, son of Late Prof. Moni Banerjee to deliver few words about his beloved father. In his address Mr. Banerjee described his father as a man of visionary. He recalled his father as a pure academician, creator of entrepreneurs as well as a responsible father and a family man also. He also highlighted some unknown stories of late Prof. Banerjee which were exclusively reserved with him till his death. Then Mr. Mallick read out a citation from Dr. Chandana Banerjee (Sarkar) on behalf of her family members.

Mr. Mallick thereafter requested Mr. Jha to introduce Prof. (Dr.) Sanjoy Chakraborty, the speaker of the prestigious "Prof Moni Banerjee Memorial Lecture"

Mr. Jha then gave a brief introduction of Prof. Chakraborty, Officer-in-Charge, Govt. College of Engineering & Leather Technology (GCELT), Kolkata and invited him to deliver his presentation.

Before his main speech Prof. Chakraborty recalled his student hood when he got lessons from his teacher Prof. Moni Banerjee. He paid his heartfelt homage to Prof. Banerjee and started to deliver the Prestigious Prof. Moni Banerjee Memorial Lecture titled "**Exploration of Chemical Science for Greener Technology**". It was a highly informative and technical sound presentation for the academicians and students of leather and chemical technology. The lecture took an excellent shape when another renowned academician Prof. Buddhadeb Chattopadhyay, former Principal GCELT and MCKV Inst. of Engg. interacted with Prof. Chakraborty and shared some of his R & D works on international level regarding leather industry. Audience was enriched with the conversation between two extra ordinary personalities taken place.

The programme came to end with offering Vote of Thanks by Mr. Susanta Mallick, Genl. Secretary ILTA.

There were around 50 – 60 participantsover Zoom platform and more than 100 viewers participated on the ILTA HR Face Book Live.

This video recording of the entire program is also available on the official YouTube channel of ILTA **(ILTA Online)** and the website of the Association – www.iltaonleather.org

WEBINAR ON "BRANDING OF LEATHER"

A Webinar on the topic **"Branding of Leather"** was organized by ILTA, which was an initiative of the HRD Committee of ILTA, on 26th March' 2021 at 7.00 pm on digital platform.

The Speakers of the day were Mr. Claudio Maffioletti, CEO, Indo Italian Chamber of Commerce, Prof. Dr. Ashok Banerjee, Former President, Calcutta Management Association and Mr. Gualtieri Gualberto, CEO, C & E Ltd.

The programme started with the Introductory Speech delivered by Mr. Susanta Mallick, General Secretary, ILTA followed by the Welcome Address delivered by Mr. Arnab Jha, President, ILTA.

Mr. Mallick then introduced the 1st speaker of the day Mr. Maffioletti and invited him to deliver his key note address. Mr. Maffioletti then delivered his lecture titled "**Leather & Sustainability – Italy's experience for India's growth**".

He described the current scenario of Indo-Italian relation in trade, commerce and industry, especially on the growth of leather and leather chemicalindustry.

Mr. Mallick then introduced the 2nd speaker of the day Prof. Ashok Banerjee and invited him to deliver his presentation. Prof. Banerjee then delivered his lecture titled "**Brand Management**".

In his speech Prof. Banerjee described that how in modern days the term Branding is important. He highlighted some pros & cons of Branding and responsibility of a house to emphasize their quality control in order to maintain their Brand. He also mentioned that in this competitive modern age Branding is compulsory for leather industry. Because leather is now not only a natural product, it's a fashion item also. So, Branding is necessary for this industry now. Then he described different ways of making a product or a logo branded.

Mr. Mallick then introduced the last and 3rdspeaker of the day Mr. Gualtieri Gualbertoand invited him to deliver his presentation. Mr. Gualberto then delivered his lecture as a case study on "**How Italians have managed to create what is universally recognized, in the global market, as the sound of the *Italian brand***".

Mr. Gualberto in his lecture elaborated that how in global leather industry Italy has been able to establish the "Made in Italy" brand through their designing, colour exploration, new machineries, high quality leather chemicals and controlled processing of leather by using modern sustainable green technology.

There was an excellent group discussion taken place after the lectures were over, where knowledge sharing and exchange of opinions among the stalwarts were main attraction. Also there was nice Q&A session taken palace which was conducted by Mr. Susanta Mallick.

The programme came to end with offering Vote of Thanks by Mr. Ratan Chowdhury, Coordinator, HRD Committee of ILTA.

There were around 70 – 80 participantsover Zoom platform and more than 100 viewers participated on the ILTA HR Face Book Live.

This video recording of the entire program is also available on the official YouTube channel of ILTA **(ILTA Online)** and the website of the Association – www.iltaonleather.org

LEXPO IN KOLKATA AND SILIGURI

- The Kolkata LEXPO – XXXXI has been proposed to be organized at Kolkata Ice Skating Rink from 18th to 26th September' 2021, 11.00 am to 8.00 pm every day. We have already deposited the booking money for the fair to the KISR authority.

- The Siliguri LEXPO – XXVI has been proposed to be organized at Kanchenjunga Krirangan Ground, Siliguri from 26th December'2021 to 10th January' 2022. Provisional allotment of the ground has been obtained and the final ground allotment confirmation is expected to receive by middle of May'2021.

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

BEREAVEMENT

With profound grief and a heavy heart we announce the sad demise of Goutam Sarkar on 14th April, 2021. He was a Life Member of our Association.

May his soul rest in peace and May God give strength to the members of the bereaved family to bear the irreparable loss.

YOUTUBE CHANNEL OF ILTA

An official **YouTube** Channel of our Association **(ILTA Online)** has been launched from 1st November' 2020. You may follow and view all the video recordings of different Seminar & Symposiums on this channel by opening it time to time.

You are requested to kindly do 'Like' the channel and 'Subscribe' it by pressing the Bell Icon beside it to get regular updates on priority basis.

RECEIVING HARD COPY OF JILTA EVERY MONTH

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

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

PUBLISH YOUR TECHNICAL ARTICLE

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

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

Members are requested to :-

a) Kindly inform us your '**E-Mail ID**', '**Mobile No**', '**Land Line No**', through E-Mail ID: admin@iltaonleather.org or over Telephone Nos. : 24413429 / 3459. This will help us to communicate you directly without help of any outsiders like Postal Department / Courier etc.

b) Kindly mention your **Membership No.** (If any) against your each and every communication, so that we can locate you easily in our record.

x

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

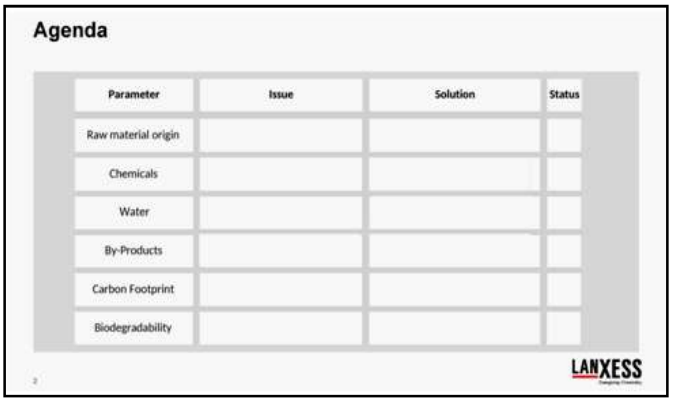
LEATHER & SUSTAINABILITY - A CONTRADICTION ?

Dr. Dietrich Tegtmeyer, Chemist, LANXESS Deutschland GmbH,

Business Unit Leather, VP Global Development Crusting and Leather Industry Relations,

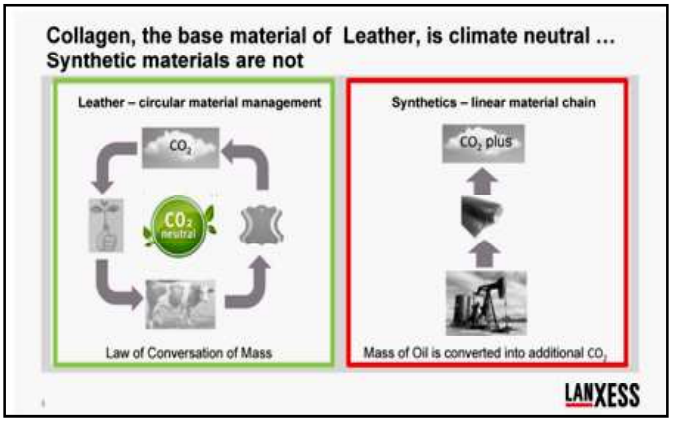
Chempark, Bld. B 108, 51368 Leverkusen, Deutschland

1. Raw Material Origin of Leather
2. Chemicals in Leather Processing
3. Water Footprint of Leather
4. Waste Management of Leather processing
5. Carbon Footprint of Leather
6. Biodegradability of Leather



1. Let me start to draw attention to the basic raw material of Leather - Collagen.

Collagen is a protein, naturally produced out of air, water and sunlight. I guess, everyone knows, the process is called photosynthesis and it is the start of a circular process flow as you can see on this chart.



The CO_2 in the air gets converted into grass, grass gets eaten by cattle, which is a 100% vegan being, and it turns the grass within a magic process into proteins. Therefore, the entire mass of an animal is generated by this process…and so, also the hide, the basic raw material for leather was made from air.

After use, when it gets deteriorated or when it biodegrades, according to the law of mass conversion, it turns back again into the exact same amount of CO_2 as it derived from – and nothing else.

This process is a bio-cycle, which means, the basic material of leather is 100% climate neutral.

This is a fundamental different to any synthetic material. Here we do have a linear process, starting from oil – as you can see on the right- the oil gets converted into plastic, which after incineration gets turned and released into additional CO_2 in the atmosphere – additional, heating up of our planet. This is the opposite of climate neutral.

Therefore, it is fair to state and an important fact, unfortunately widely unknown and too often incorrectly described, that leather in general has a climate neutral raw material base, so in contradiction to synthetic materials we should mark the raw material origin of leather with a clear green dot.

2. Now I want to discuss the aspect of chemicals.

Why? 30-40% of the weight of leather are incorporated or attached chemicals.

So, chemistry is an important factor in the leather making process, without chemicals no leather.

The role of chemicals varies,

Corresponding author E-mail : dietrich.tegtmeyer@lanxess.com

- Chemicals prepare and turn the hide into the durable material Leather, which is called tanning
- Chemicals are providing the character of the leather
- Chemicals are generating the value of leather
- And finally, chemicals guarantee the technical performance of leather

But, coming back to the intro-question: do chemicals make the article leather less sustainable?

Since about 20 years the chemical industry has focused on a sustainable development process for chemicals…

- to make or keep chemicals as natural as possible
- and to make them as harmless as possible

Therefore, most chemicals we use for leather making have even a natural origin

- like enzymes proteins, casein waxes, starch,
- or a purely natural extracts such as vegetable tannin, cellulose, lignin,
- or even inorganic materials such as talcum or zeolite.

And those chemicals are completely harmless in this application.

To answer the question from before, I think it is fair to state: No, chemicals are not an issue for sustainability in leather making but can be even a solution to it.

How is it possible to make sure, that only sustainable, non-hazardous chemicals are used ?

Here, the leather industry - likes the textile sector - supports the Road to Zero initiative ZDHC, an NGO, which has generated a "White List" for sustainable leather chemicals, the so-called Manufacturing Restricted Substance List, MRSL. This MRSL gets updated based on latest science.

ZDHC is a platform which ensures the use and even the proper production of these chemicals used in the field of textile and leather.

A tannery, which choses to use this chemical portfolio operates safe and responsible. This sourcing list is available to any tanner in the world for free, and each brand can enforce to use it from his supplier, that's why I mark the chemical section with a green dot as well.

These were the chemicals…

What about the sustainability level of the leather making process ?

Here are also lot of misleading information around in public media, while the truth about today's industrial manufacturing conditions is very much different ?

3. Let's talk about water first: yes, water is required in the leather making process, because leather is produced in big drums, in a process similar to a washing machine.

If you look on the water footprint, there are huge numbers of water communicated in the media. e.g. waterfootprint.org says 17.000 l water are required to produce only 1 qm.

Is this fair to state? I would say no, or at least it requires some explanation: 99% of these 17 cbm water are allocated to the farming industry, and more than 90% of it is just rain or surface water to grow the plants the animal is going to eat. This is going to happen anyway, regardless if an animal hide is converted into leather or not, and to my understanding it cannot be counted as a typical production footprint.

The real amount of process water in the tannery varies between less than 100 and 250 l/qm, depending on, how much water saving technologies a tanner has implemented.

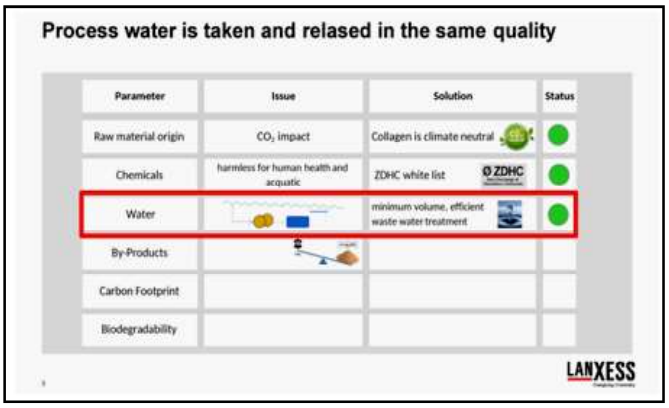
In general I have to say, a tannery is even not consuming the water…

As shown in this little schema a tannery usually operates in a bypass to a river. The required process water is taken out of the river, just borrowed from the river, used for the process for several days, and cleaned afterwards before getting back released into the river again.

If there is an efficient treatment in place, as it should be standard today in the tanning industry, the discharged effluent is clean, in an ideal case even cleaner than the water, which was taken out of the river before.

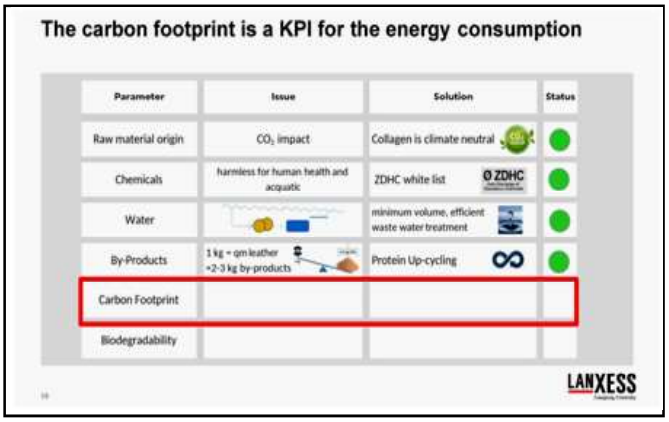
Therefore, from a responsible production point of view, Water is not an issue for leather production at all, and we can mark this topic with a green dot as well.

By the way: a Denim jeans ware – to my knowledge - requires more than 1,000 l/qm for its production. So, leather actually is not too bad in this regard compared to other materials.



4. Another important sustainability aspect of leather production is the management of by-products : The production of 1 kg of leather generates on a dry substance base about 2-3 kg of by-products. Those by-products are not waste, but proteins a valuable raw material source for other applications.

The tanning industry together with the chemical industry works on many concepts to make use of them as much as possible. If those activities are in place, we can mark this again with a green dot.



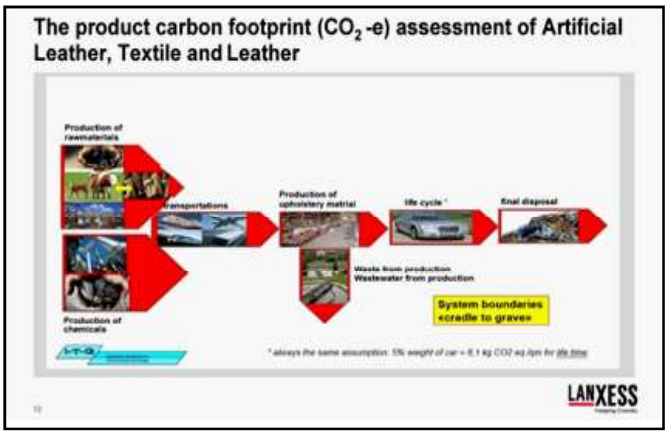
So how can a brand ensure, that all these sustainable process operations have been in place for the leather he is going to purchase? In order to ensure, that all these good practices are in place, the leather industry together with leading brands has established an own NGO - The Leather Working Group – which audits all these mentioned parameters - a sustainable chemical management, responsible water use, a low waste by-product management and an efficient energy consumption.

The LWG has developed a measurable table of KPIs per production of each sqft leather. If those LWG parameters are achieved, the tannery is certified and rated with a medal. So, to answer the question before, if a brand wants to choose a sustainable leather source, it is pretty easy: just source it from an LWG audited and rated tannery.

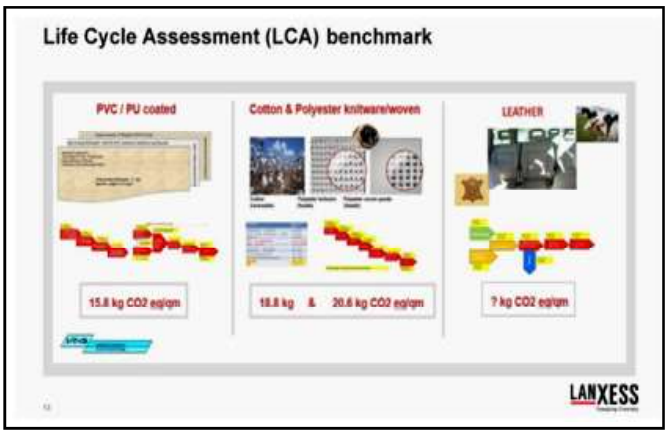
5. Next, I want to make another point clear, which often is taken to the disadvantage for leather, the product carbon footprint. This is a KPI, which measures mainly the cumulated energy consumption of a process :

Here I'm going to refer to a scientific benchmark study for different consumer good materials done by Jutta Knoedler in the year 2011 combined with the new EU category rules published last year.

In this study she has compared in a Cradle to Grave process the Product Carbon Footprint for the entire life span of different materials – artificial leather, cotton, PU-coated synthetics and genuine leather – starting from the production of chemicals, transportation of intermediates, waste water treatments, the use during lifetime as well as the final disposal of the material in an incineration.

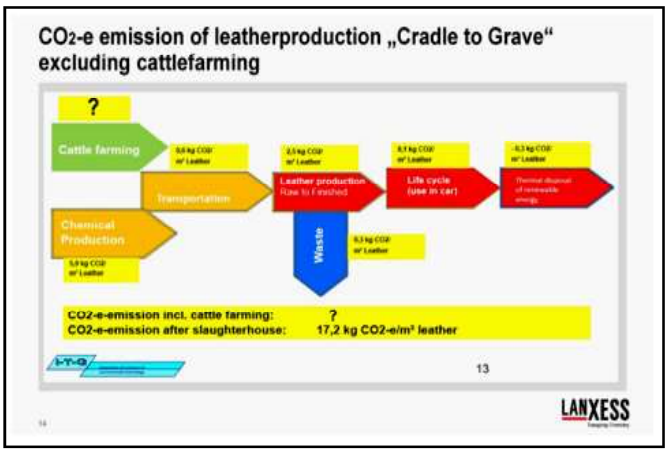


As a result after a step by step analysis it can be shown, that the carbon footprint of PU coated material is around 16 kg CO_2 eq/qm, a cotton material has about 19, and a polyester type of woven results in 21 kg CO_2 eq/qm.



In all cases the same estimate of 8.1 kg CO_2 eq are included for a use during its lifetime, which we actually can deduct from these final values, if we only want to look just for the PCF for the material fabrication including its deterioration.

How do these values now look like compared to leather ?



Even here all steps have been evaluated separately, chemical production, transportation, the tannery operation, waste water treatment, and the incineration; all in all we come to a similar value of 17.2 kg CO_2 eq/qm just evaluating the leather making process.

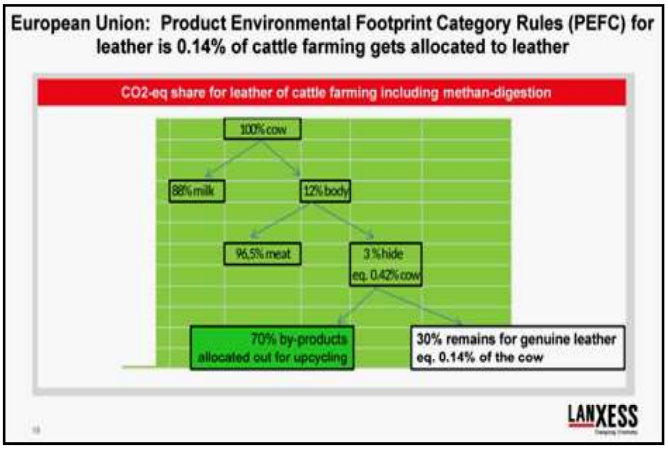
A big question mark in the PCF discussion for leather always are the boundaries, especially, what is the contribution or allocation from upstream process like the farming of animals.

To get an scientific answer here I want to refer briefly to a very recent study published last year and conducted in a joint project of the meat and leather industry in the European Union: the Product Environmental Footprint Category Rules (PEFC) for leather :

According to this norm 88 % of the value of a cow is allocated to the milk and dairy industry, and 12% is going to be allocated to the body.

From the 12% 96.5% are allocated to meat, and only 3% to the hide, the basic material for the leather industry.

If we follow this logic and allocate according to a mass balance 30% to the main output product, the genuine leather, and 70% to the upcycled byproducts only 0.14% of the entire carbon footprint of a cow finally gets allocated to the material leather…

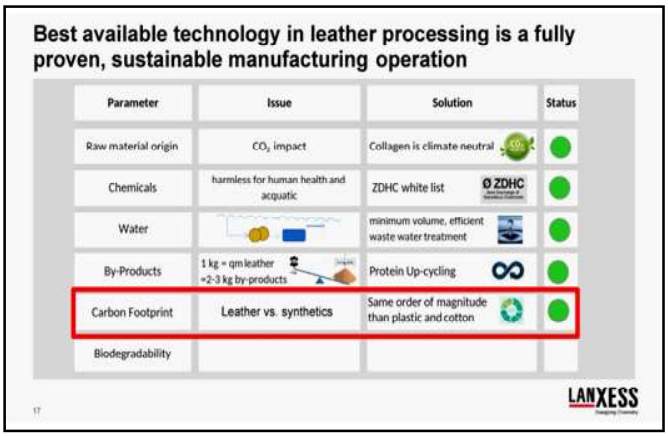


…this corresponds to an allocation of about 3 kg CO_2eq/qm for leather.

If we include this is the leather making process it adds up to a total of 20.2 kg…

… which is in the same order of magnitude of the other possible materials.

Therefore, I have set even this parameter with a green dot as well.

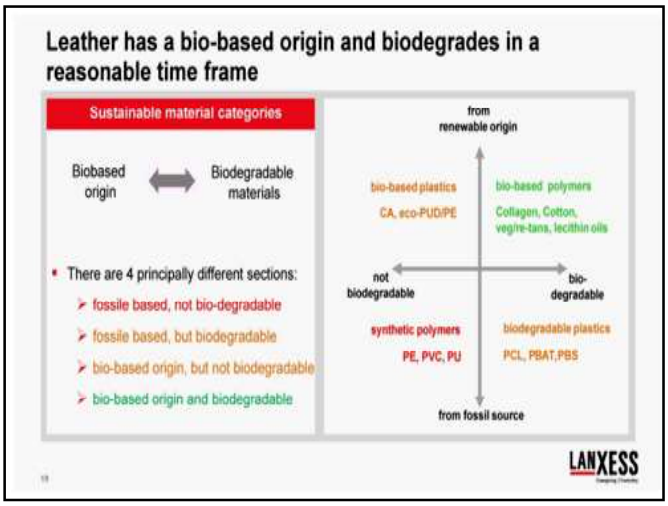


6. Finally, I want to come to a real advantage of the material leather, an aspect, which in today's world gets more and more important : the biodegradability of a material.

Let me explain in more detail: for the discussion it is important to differentiate between

- a bio-based origin, which means its origin is renewable and it is generated by a biological process in nature and
- a biodegradable raw material, when a material in a reasonable time frame – let's say less than 100 days – breaks down into natural components, which can be taken up by bio-cycles again; it gets demineralized.

Based on this we can differentiate four sections, as it is shown in a schema:



First, there are synthetic polymers, which are based on a fossil source, oil, and NOT biodegradable. These are plastics such as PVC, Polyester or Polyurethane Materials.

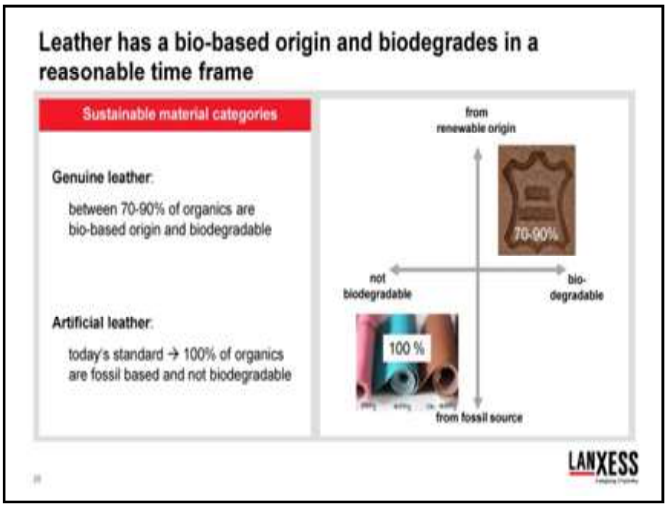
First, there are synthetic polymers, which are based on a fossil source, oil, and NOT biodegradable. These are plastics such as PVC, Polyester or Polyurethane Materials.

Then, the industry is in process to develop plastics, which can biodegrade, however, they are still based on oil.

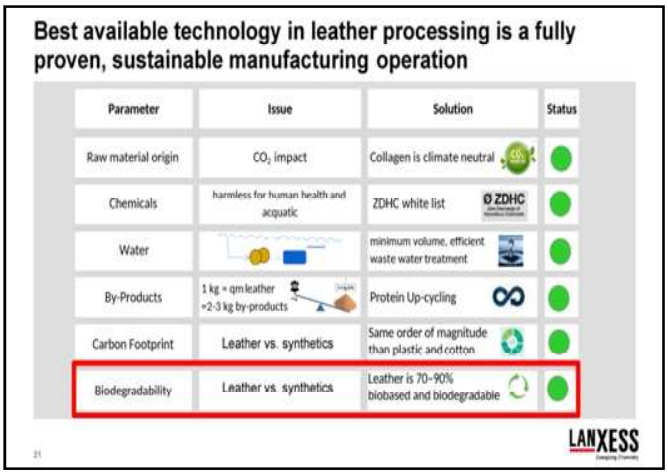
A third group contains bio-based plastics, which means the material is based on natural sources such as cellulose or generated e.g. by enzymes, but they cannot biodegrade due to its chemical modification, the polymerization. And a fourth group or material covers a true sustainable material, they are made out of bio-based polymers, which can even biodegrade, such as the basic material of leather – collagen -, or even lots of leather chemicals like veg tans or lecithin oils.

Based on this scientific categorization a clear differentiation has to be done between

- Artificial leather, standard plastic, 100% based on oil and not biodegradable, and
- Genuine leather, which consist at least 70-90% - depending on the recipe – on renewable raw materials and biodegrades in the environment in a short period of time. Here, the industry works on processes and recipes to bring this value up as high as possible; theoretically possible is even a value of 100%, however, than certainly some performance criteria will be sacrificed.



To complete the parameter chart we can state, leather is even from the aspect of biodegradability a sustainable material, and we can mark even this last KPI again with a green dot.



I'm coming to my last chart: Let me summarize the sustainable leather story…

I hope I was clear in my argumentation saying :

- Leather has a climate neutral material base
- It can be done in a safe and audited way
- Leather chemistry is proven to be safe in use and harmless for environment and human health
- Leather is based up 70-90% on renewable materials which are fully biodegradable

As a conclusion I think it is fair to state, that the leather industry has successfully managed the process of change from an old handcraft to a modern recycling industry. In terms of sustainability readiness level and transparency in their supply chain I think the leather industry is not only better than their image but far ahead from many other industries…

… and I think it is fair to conclude: the use of leather is the ultimate sustainable choice of a material.

INTERNATIONAL UNION OF LEATHER TECHNOLOGISTS AND CHEMISTS SOCIETIES

News Release from the IULTCS

IULTCS information - Results of Voting and Addis Ababa Congress Information

Results of voting

The voting for the IULTCS Merit Award 2021 and the location of the 2025 IULTCS Congress closed on 26th March. Many thanks to the large number of members who voted.

The **IULTCS Merit Award 2021** is awarded to **Dr T. Ramasami** of India. Our sincere congratulations to Dr Ramasami. The presentation of the Merit Award is scheduled for the 2021 IULTCS Congress in November.

The **2025 IULTCS Congress** is awarded to **AFICTIC France** and in 2025 will be held in Lyon. Congratulations to our colleagues in France and we are sure they will organize an excellent Congress.

News releases announcing these decisions will be prepared in the near future.

2021 IULTCS Congress in Addis Ababa, 3rd - 5th November 2021

The officers of the IULTCS Executive Committee recently held a virtual meeting with the organizers of the 2021 IULTCS Congress in Addis Ababa. They confirmed the Congress will proceed in November as a **hybrid virtual/presence Congress**.

With the Covid-19 pandemic continuing to cause problems for travel in many countries, the decision to have virtual participation in the Congress and to make presentations virtually is most welcome. Now abstracts for the Congress can be submitted without concern about what the travel situation will be in November. We encourage you to inform your scientists and members to submit abstracts for Congress presentations as soon as possible.

Please use the Congress website : **www.iultcs2021africa.org**

You can also link through to the Addis Ababa Congress website from the banner on the homepage of the IULTCS website , www.iultcs.org

Information about the dates of future IULTCS Congresses and Regional Conferences

2021 - 36th IULTCS Congress, Addis Ababa, Ethiopia, 3rd - 5th November 2021
2022 - 3rd IULTCS Euro Congress, Vicenza, Italy, 18th - 20th September 2022
2022 - 12th AICLST Asian Conference, Queenstown, New Zealand, 18th - 22nd October 2022
2023 - 37th IULTCS Congress, Chengdu, China, end of October 2023
2025 - 38th IULTCS Congress, Lyon, France.

Updated list of Executive Committee members

Attached is an updated list of the IULTCS Executive Committee members.

Su Chaoying, the CLIA China representative for many years, will shortly retire and Chen Zhanguang is now the CLIA Member Representative.

We wish Su Chaoying good health and a long and happy retirement.

(Source : Email from Campbell Page – 29/03/2021)

XXXVI IULTCS Congress and 5th World Leather Congress becoming HYBRID events

Africa Leather and Leather Products Institute (ALLPI), in conjunction with the Government of Ethiopia, is excited to announce that the 36thInternational Union of Leather Technologists and Chemists Societies (IULTCS) Congress, and the 5thWorld Leather Congress (WLC) are becoming HYBRID events, to offer participants the choice of how they prefer to attend these important international congresses.

Both events will be held in Addis Ababa, Ethiopia from 01- 05 November 2021.

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

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

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

Registration for the congresses has commenced and a new registration fee structure for remote registrations is in place – with the ability to 'upgrade' to in person attendance if travel restrictions allow. Abstract submission is open until 31August 2021 – with the option to submit to present a remote paper, allowing current global research to be shared, even if the presenter cannot be in attendance.

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

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

Summary Information :

5th World Leather Congress: 01 November 2021
XXXVI IULTCS Congress: 03 - 05 November 2021
Venue: Ethiopian Skylight Hotel, Addis Ababa, Ethiopia
Working Language : English
ALLPI Website: https://www.allpi.int

(Source : Email from Christine Anscombe – 09/04/2021)

AICC - Italian Leather Chemists Association free webinar

The Italian Leather Chemists Association (AICC) is pleased to invite all members of the IULTCS Societies of Leather Technologists and Chemists to participate in a free webinar to be held on 29 April 2021, at 17.30 - Rome time.

Organoleptic Leather Properties - Odor: evaluation and possible odour sources

Presented by Dr Michael Holzwarth, Head of Competence Center VIAQ, VOC, Odor IMAT-UVE

During the Webinar the following topics will be covered :

1. Introduction: the olfactory sense (25min)
   a) physiology & psychophysics of the human olfactory sense
   b) cultural differences in odor perception

2. Odor evaluations for product qualification (20min)
   a) methodology
   b) odor panel quality management

3. Identifying odor sources (10min)
   a) odorants elucidation
   b) prospect

4. Conclusion(s) (5min)

For the registration use this suitable link :

https://us06web.zoom.us/webinar/register/WN_Pyeno5q3S42jQDTLIdrdWA

Registration is mandatory by **April 27th**.

The presentation will be held in **English**, with instantaneously translation in Italian. To use the translation service, it is necessary to have Zoom updated to the latest version, here the link to download it. Zoom Download Center

For other information send an e-mail to: comunicazione@aicc.it

(Source : Email from Adriano Peruzzi – 13/04/2021)

INVITATION FROM IULTCE TO ITS MEMBER SOCIETY ILTA

Dear INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION,

The XXXVI IULTCS Congress will be held during the 3rd – 5th November 2021 in Addis Ababa, Ethiopia. The Organizers, therefore, invite Member Societies, Associate Members and Individual Members to send abstracts of their original scientific research findings to be presented in form of an oral lecture or visual display during the Congress.

Kindly also share this call to your networks so that they can submit abstracts and participate in this global leather event.

The submission of the abstracts has started and ends on 30th July 2021.

Theme of the XXXVI IULTCS Congress is "Greening the Leather Value Chain".

Thematic Areas: The following are the thematic areas of paper submissions:

1. Scientific Researches of leather
2. Leather chemicals
3. Cleaner technologies for leather processing;
4. Composite materials and utilization of leather waste resources;
5. Environmental Management Technologies in the ,leather industry;
6. Novel detection techniques in the processing of leather;
7. Leather industry entrepreneurship and progress towards sustainability;
8. Intelligent manufacturing of leather products;
9. Fashion, life style leather products and design innovations;

You may copy & paste the following link on your browser to get the details:-

https://www.iultcs2021africa.org/event/ff8cfe3d-41d4-4b7a-95f2-1b917fa314b4/websitePage:8bb9b5dc-e171-493e-beeb-fc63d51dbf77?RefId=thematic

In case you would like to have additional information regarding thematic areas for your scientific paper preparation please contact:

Prof. Mekonnen Hailmariam
E-mail: mekonnenh@allpi.int
Tel: +251-911-662669

We appreciate you in advance for your anticipated positive response and look forward to hearing from you soon

Prof. (Dr5) Mwinyikione Mwinyihija
President of ICT / IULTCS Congress President
Africa Leather and Leather Products Institute
executive.director@allpi.int
P.O.Box : 2358 Code 1110
Fax : 251-11-4390900
Addis Ababa, Ethiopia

What Happens to the Centre of Mass ?

Dr. Buddhadeb Chattopadhyay

Former Principal of Govt. College of Engineering & Leather Technology, Kolkata
& MCKV Institute of Engineering, Howrah

Let's try to take a brief out-of-box view and try to understand first, what is a chair? Well, a chair is not so simple, as you may see it. It is not a single compound. It contains lot many things for example, wood, irons, nails, paints (pigments, film forming polymers, stabilizers, fillers etc), dirt, moisture so on and so forth. In fact, a single pure material uncontaminated doesn't exist at all.

Now coming to the central point, if, we apply a force externally to the chair, i.e., let's say, we push it; what happens to it? You will answer correctly that the chair will accelerate. The Newton's second law of motion is known to us. We know that when an external force is applied on a body of mass m, it will accelerate. We also know the quantitative relationship. If, the applied force is F and the acceleration is a, then F = ma.

That's so simple. Isn't it? Now, the crux of the problem is which accelerates? The arms of the chair, seat of the chair, legs of the chair, paints or the dust particles? Can we say very precisely? Well, all these need an approximation. Considering chair as a single entity not a mixture of so many different molecules of diverse in nature. Now let us try to go little deeper in our reasoning.

Let's suppose the chair is formed by a very large number of the ith particles having mass m' and radial position vector of r'.

Therefore, it becomes by this approximation that if the externally applied force on the chair is F, then each its particle would receive the same share, say f', such that: -

$$F = \sum f' \text{----------(1)}$$

We can apply Newton's second Law of Motion which becomes applicable to each ith particle also and this gives us the equation as:

$$f' = m'.\ d^2(r')/dt^2 \text{ ---------- (2)}$$

or, we may write also in the form of Newton's Second Law of Motion :

$$f' = d^2(m'r')/dt^2 \text{ ---------- (3)}$$

Now, if we add forces on all the particles of its kind; that is, if, we take the sum of all the f' as per the equation (1), we get the total external force:

Hence, we may re-write the equation as :

$$F = \sum f' = d^2 (\sum m'r')/dt^2 \text{ ---------- (4)}$$

Therefore, the total force is the second derivative of mass times their positions, added together.

The question remains, can we reframe equation (4) in the form of familiar Newton's Second Law of Motion? The answer is, of course, why not ?

We can write the equation (4) as :

$F = d^2(MR)/dt^2$ [where M is the sum of all masses of the particles of ith kind] i.e., $M = \sum m']$ ------ (5)

This is true, subject to the condition that :

$$R = \sum(m'r')/M \text{ ---------- (6)}$$

What does it mean? It means that if, we apply an external force to the chair, it will cause an acceleration of an imaginary point, within the envelop (space occupied by the chair) of the chair, whose positional radial vector (R) is the mass weighted average of all the position vectors. In other words, an external force applied to an object is the mass times acceleration of an imaginary point whose location is R.

This point is called the centre of mass of the body. It is a point somewhere in the "middle" of the body, a kind of average r in which r' have weights or importance proportional to the mass. That's the reason why it is said that the centre of mass is such a point, as if, the entire mass of the body is concentrated at that point. This is the simplification of the fact; since, it did cause the acceleration to that point (R).

[Source: Feynman's Lecture in Physics; Vol I]

UPPCB ORDERS CLOSURE OF 95 JAJMAU TANNERIES INDEFINITELY

The Uttar Pradesh Pollution Control Board (UPPCB) has ordered closure of 95 tanneries in Jajmau for an indefinite period with immediate effect as pumping station number 3 and Sewage Treatment Plant (STP) are overflowing.In its order dated March 19, 2021, UPPCB also ordered disconnection of the power and water supply of all these all tanneries.

The order was received by Kanpur district magistrate on Wednesday.

UPPCB has also directed the owners of all tanneries to install CCTV cameras in their units within a month and submit their compliance reports.In compliance of the order, the DM constituted four teams comprising an additional city magistrate and one engineer each of regional pollution control board and Kesco.The teams supervised disconnection of power of around a dozen tanneries on Thursday.Around 217 tanneries in Jajmau have been operating as per 15-day roster issued by the DM on July 31, 2020.

The tanneries linked to pumping station one operates in the first fortnight of the month and those linked with pumping station no. 3 (Wazidpur pumping station) in the second fortnight. Jal Nigam officials had given a report to the regional pollution control board informing that tanneries linked with pumping station number 3 were discharging their effluents in domestic sewer due to which the STP was overflowing.

The RPCB issued show-cause notice to tannery operators but the overflowing problem persisted. The RPCB then informed its state headquarters and administrative officers following which UPPCB chief environment officer Ajay Kumar Sharma ordered closure of the 95 tanneries linked to pumping station number 3. Firoz Alam, office bearer of Small Tanners' Association, termed the order arbitrary.

"The officials don't even hear our versions and closure order is issued. All tanneries have flow meters which are connected to the CPCB server for monitoring," he said."Also there is no sewer line in Jajmau area. The domestic effluents reached the pumping station and caused overflow. This should be checked," he claimed.

RPCB engineer Anil Mathur said, "The flow meters can be bypassed and there is no system by which 24-hour monitoring can be done. The problem was the overflowing of STP and that has to be stopped."

(Source : Times of India – 26/03/2021)

BHARTIYA TO FOCUS ON SUSTAINABLE MANUFACTURING

Congratulations to Bhartiya who have implemented their Supplier Sure project. This project which was uniquely developed for Bhartiya gives third party verification to a range of positive activities that the company has been working on. The company which is already rated Gold and Silver by the Leather Working Group has built on this solid environmental foundation to further develop on its concept of "a good company that wants to do better".

A.V.Kishore, COO & Head of Leather Division Bhartiya International Ltd said "we worked with Eurofins BLC on this project using their insight into the needs and direction of the market and came up with an augmentation plan for the business. We had already begun the development process but wanted reassurance that we were on the right track and of course third-party validation of our activities".

Working with Eurofins BLC, Bhartiya were able to validate their activities so that they can create authentic messaging. The validations included reviews of their social auditing process, the management of mould, policies on animal welfare and deforestation, the traceability of material, and the governance processes etc. These are all in addition to the in-depth assessment that is the Leather Working Group audit which covers operating permits, water and energy metrics and targets, liquid and solid waste discharges, RSL, MRSL and Chrome VI management, health and safety, VOC emissions, environmental management systems and more.

One of the big projects Bhartiya worked on as part of this project was better transparency of their supply chain and clearer traceability of raw material origins. Bhartiya chose to work with Eurofins BLC to geo reference and map their complete upstream supply chain using our specialised mapping process and software. This on-going project has enabled them to ensure that their raw material sources are not driving deforestation and facilitates dialogue with in-direct suppliers further up the supply chain on topics such as animal welfare, deforestation, and social governance. Our view is that you must have good transparency of the supply chain to be able to manage potential sensitivities within it.

The Bhartiya Supplier Sure programme also focussed us on other important projects such as the biodegradability and disintegration characteristics of the different leather as well as starting discussions on other topics such as carbon footprint and life cycle analysis.

Contact Bhartiya

Eurofins | BLC offers a variety of sustainability and supply chain mapping services designed to improve the efficiency of your supply chain by highlighting risks and creating effective solutions. Our expertise includes leather lifecycle and waste, materials traceability, data collection, manufacturing, chemical management, and audits.

Get in touch with our experts by emailing info@blcleathertech.com, call +44 (0)1604 679 999 or complete the web form at the bottom of this page.

(Source : https://www.blcleathertech.com/-24 March 2021)

"STRONG PROGRESS" ON CSR FOR SMIT & ZOON

Leather chemicals manufacturer Smit & Zoon has published a new corporate social responsibility (CSR) report, giving a detailed assessment of its environmental and social performance in 2020.

In the report, the company outlines "strong progress" it has made towards fulfilling the mission it has set itself: it wants to create a socially and environmentally sustainable leather supply chain by 2025.

It achieved level-three conformance (the highest level) with the Zero Discharge of Hazardous Chemicals (ZDHC) programme for its whole product range. Another achievement the report points to is the introduction of products such as the Opti-tan re-tanning range that produce good results in tanneries while reducing application dosages, chemical oxygen demand, salinity, conductivity, free monomers in wastewater and volumes of total dispensed solids.

In addition, the report points to the launch during 2020 of Smit & Zoon's Zeology tanning concept, which it has described as a sustainable, chrome-free alternative to existing tanning systems.

On publishing the report, chief executive, Hans van Haarst, said: "Our global team that has done a remarkable job in a difficult period." He said he was proud of the contribution Smit & Zoon makes to leather production. Making leather provides an environmental service to communities and brings social benefits by creating jobs and providing a uniquely versatile material for use in a wide array of finished products.

Leather chemicals manufacturers support the upcycling of hides, a by-product from the meat industry, into a long-lasting material with unique characteristics, Mr van Haarst said. He added: "This year we celebrate 200 years of the company's existence. We look forward with confidence to a sustainable future."

(Source : https://leatherbiz.com/News - 16/04/2021)

INDIAN EXPORTS SEE FEBRUARY'21 DECLINE

India's trade deficit has widened, as imports rose 6.98% during February. The country's goods exports declined marginally by 0.25% to $27.67 billion (year-on-year) after increasing for two consecutive months as major commodities, including petroleum, engineering goods, gems & jewellery, ready-made garments and leather produce suffered a set-back. On a positive note, exporters' body Fieo pointed out that the month's fall in exports was marginal and signs of revival continued not only in the order booking positions but also in the demand from across the globe. "This could pave the way for much better days and months ahead for the sector," Fieo President S K Saraf said.

One area of concern that needed to be addressed was the rising exports from China which had led to a shortage of containers in the region as most of the empty containers are available only for exports from China. This is due to shipping lines and container companies being paid hefty premiums for bringing empty containers back to China.

"While the overall non oil imports were in line with our expectations, this masks a spike in gold imports, counter-balanced by a month-on-month dip in non oil non gold imports," said Aditi Nayar, Principal Economist, ICRA Limited.

Following the Budget, in February 2021, gold imports surged to the highest level since November 2014, she said, adding that with gold imports remaining elevated for the last three months, the total value of shipments in the current fiscal year may modestly exceed the level of $28.2 billion seen in the previous.

(Source : https://www.leathermag.com – 04/03/2021)

WHEN IT COMES TO SUSTAINABILITY, THE LEATHER SECTOR HAS SOME CRACKS

Global civil society organisation (CSO) Solidaridad has decades of experience in developing sustainable supply chains in agriculture, textiles and gold mining. Based on five years working in sustainable leather, Gert van der Bijl, Policy Influencer at Solidaridad, provides insight on where he feels the global leather sector stands today in terms of sustainability.

Loving leather is a bit like a virus, once you come into contact with the industry, you catch the bug. That's what people in the leather industry tell me, and even I, in my capacity as a sustainability expert, was not immune. People that works in the leather sector tend to be passionate about the product. This passion is contagious, but it comes with its downsides. Those that love leather can be overly defensive when outsiders raise concerns about the sustainability of the product. I have met

more than one leather sector worker who believed the product to be 'sustainable by nature', due to the fact that leather is a by-product of livestock, a means of using something that would otherwise have gone to waste.

That, sadly, is a simplification of the sinuous supply chain that sees leather delivered to its final destination. The leather sector is global and complex, involving millions of workers across national boundaries and with a turnover of rough □80 billion a year. No supply chain involving that money and that many people can be free of sustainability concerns.

However, despite being burdened with its own issues, the idea advocated by some activists that leather is inherently unsustainable, is equally off the mark. The truth is that the leather industry, when it comes to sustainability, has a few cracks. But, like anyone who has ever repaired a crack in a leather shoe can tell you, how you treat those cracks can make all the difference.

With that in mind, I would like to share what I have learned about sustainability in leather supply chains; the problems, and how they can be best addressed to allow this industry, which so many people love, to stand the test of time.

A complex supply chain

Firstly, it is important to showcase why leather can present such a puzzle for sustainability programmes. Essentially, this is due to its highly complex supply chain.

Leather production starts in farms, where cattle are raised and slaughtered. The hides are sold to tanneries, which can be located across the world. Tanneries process the hides into what we call leather, which is sold to manufacturers to be turned into a huge variety of end products, from shoes and jackets, to car seats and bags. At every stage a huge number of employees and private sector entities is involved, including farmers, leather traders, wholesalers and retailers, high-fashion brands, SMEs and more. Throughout this process, leather often travels around the world, from Africa to India and then to Europe or America. It is not just an international chain, but a global network. A testament to this is the fact that a large number of the world's tanneries is located in the global south, including India and Bangladesh, far away from where most profit on these products is made, namely in high-income countries in Europe.

This last point is also a testament to the deeper sustainability issues in the leather sector.

Sustainability challenges

Today, tanneries in countries such as the Netherlands work with high environmental standards and good conditions for employees. However, it is exactly the environmental and labour standards enshrined in European countries that led many large tanneries to move southwards decades ago. As a result, sustainability issues have not been tackled, they have been relocated.

Name an issue and it presents itself somewhere in the leather supply chain: improper land use; CO2 emissions and animal welfare in livestock, environmental and labour challenges in tanning, and labour issues in manufacturing. Millions of people, men and women, in leather manufacturing and tanneries, are not likely to earn a living wage, the income necessary for a worker to meet his or her basic needs. Worldwide tanneries cause pollution through liquid or solid waste. Leather demand is not the real driver for livestock expansion and deforestation - this driver is mainly the demand for meat - but hides and leather are part of the same supply chain. This is worth a deeper look, but a lot of consumers have already made up their mind.

There are many companies in the supply chain that have no clue what they could or should do to promote sustainability or how to work with suppliers on promoting it. Some simply don't really care about it at all. And although there are some in the sector who feel victimised by the media, the actual attention paid by the media to issues in leather sustainability is scant, perhaps due to its complex nature.

Repairing the cracks

All that said, these sustainability shortcomings are not the complete picture. I have seen a lot of people in the leather industry that are passionately working to improve sustainability, and they are making good progress. Companies, big and small, are promoting sustainability in their supply chains. Some large companies, such as Timberland and Kering are going as far as stimulating regenerative farming at the livestock level, working with farmers to create sustainability standards at the source. Producers of essential tanning chemicals, such as Stahl, are working hard to promote the safe and environmentally friendly use of chemicals at tanneries in the developing world. Dugros, partner of Solidaridad in Kolkata, is working in its own tannery with high environmental and social standards. At the retail and manufacturer level, small leather bag companies such as MyoMy and OMyBag in the Netherlands strive to sell products that are truly sustainable, trying to buy from sources that ensure decent working conditions for employees and high environmental standards. And in many countries, tanneries have drastically reduced pollution.

There are also more and more joint sustainability initiatives being developed in the sector.

However, these have their drawbacks. Many of them have been set up by regional industries who are also seeking to boost sales. And a lot of these initiatives are still quite internal to the industry. When Solidaridad asked to join the Leather Working Group (LWG), the strongest and most well-known voice in the sector, the answer was that the LWG is a business-led initiative. LWG has set a standard and audit system for chemical management in tanneries and now certifies around 20% of global leather production. Increasingly, companies will only buy leather if it is LWG certified. Despite the real value LWG adds to this sector, it is still far from a real supply chain sustainability system. Multi-stakeholder initiatives for sustainability are poorly developed, and sorely needed in the leather sector. Apart from a few larger companies, the leather sector is under-represented in initiatives such as the Sustainable Apparel Coalition or the Apparel Impact Institute.

This needs to change, and there are signs that these cracks in the leather sector are being treated. The LWG is slowly broadening its scope. The Responsible Leather Round Table has developed the Leather Impact Accelerator to promote improvement throughout the sector. And the Sustainable Leather Foundation (SLF), a new not-for-profit, independent organisation is piloting a system to work across the whole supply chain from farm to consumer, looking at all sustainability risks. SLF is already engaging on a collaborative level with industry stakeholders to work together for better outcomes and sees training and support, at the grassroots level, as a key to its success.

I really hope these initiatives can heal the cracks that I see: providing guidance and support throughout the supply chain to continuously improve, supporting downstream companies, big and small, to invest in upstream sustainability and becoming genuinely transparent about performance internally and externally towards consumers and the general public. It is a complex enough chain already, and if the leather sector wants to build trust with a more sustainability engaged public, the facts about leather, and where it falls short, need to be easily accessible.

On the policy side, this may soon not be an option. In the relatively short-term, mandatory EU due diligence measures will be developed and it is important for the leather industry to be aware, and to make sure sustainability activities are aligned with policy.

But as I said, there are a lot of companies and individuals with a real drive to address these issues in leather. If these voices are heard, these issues do not have to mean that leather will remain a broadly unsustainable product. And upcoming legislation won't have to be a danger to the sector, but an opportunity to grow and build a better leather supply chain.

Written by :Gert van der Bijl, Policy Influencer at Solidaridad.

(Source : https://internationalleathermaker.com – 18/03/2021)

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A STUDY OF THE SOLUBLE AND INSOLUBLE SALTS IN SOME VEGETABLE TANNING MATERIALS*—PART III

N. N. Guha

(Continued from January 1962 issue)

Development of two quick methods for the determination of 'total salts' in vegetable tanning materials :

The two most widely used methods for the determination of salts in vegetable tanning extracts are the Barium chloride sulphated ash and resin column procedure. It was thought worthwhile to try and develop new type of procedures for salt determination. It is preferable that a recommended method should be applicable to raw tanning materials as well as extracts. The resin column procedure can only be used on extracts and is not particularly convenient. In addition the usual regeneration procedures are time consuming.

The usual sulphated ash method is applicable to raw materials as well as extracts but the precipitation and filtration steps are again rather lengthy. There is no complete agreement on the correct time to allow for total precipitation of the $BaSO_4$. In the literature recommendations ranging from half an hour to 2 or 3 hours or even overnight may be found. This step can therefore be a source of considerable delay before a result is obtained. The filtration and washing can also be rather slow.

It is also worth stressing that the $BaSO_4$ procedure is subject to a variety of errors which are not always recognised, especially in a routine laboratory. Various salts may co-precipitate with the barium sulphate if the conditions are incorrectly followed [1] and also it is possible for some reduction of the barium sulphate to occur in the final ignition if care is not taken.

In recent years, several procedures have been suggested which would speed up this determination. Most of them depend on a volumetric finish instead of the usual gravimetric procedure. As an example, Belcher developed a method of dissolving the $BaSO_4$ ppt. in EDTA in the presence of ammonia at the boil. The barium or excess EDTA may then be determined volumetrically.

Although this procedure is prefered by Belcher for the determination of small amounts of sulphate, it does not eliminate the precipitation and filtration steps which are the most time consuming.

A few other known volmetric methods for the determination of sulphate are not likely to be very accurate for small amounts. A procedure given by Cassidy[2] however is applicable. It depends in the precipitation of lead sulphate from aqueous alcoholic solution followed by titration of the excess lead with standard potassium chromate. The precipitation and filtration stages are more rapid than in the $BaSO_4$ procedure and also the volumetric finish is faster than an ignition

* Based on author's thesis which was awarded M.Sc., degree of Leeds University.

procedure. This method was studied by the author and found to give good agreement with the $BaCl_2$ method.

A cation exchange resin procedure is quite attractive particularly if only inorganic salts have to be estimated. This eliminates any controversy about the end point for the determination of the acid released in the treatment, and also an indicator may be used instead of the glass electrode and pH meter. The modern cation exchange resins are available in small particle size ranges, with correspondingly increased rates of exchange. They are thus suitable for a batch type procedure in which the solution is simply shaken with the resin. The small amounts of resin used can be discarded, or recovered and regenerated in large batches, if desired. The lengthy and frequent regeneration and washings involved in column procedures are avoided.

This type of batch procedure is more convenient than an alteranative method which was later found in the literature due to Mikes and Szanto[3]. These workers determined sulphate by using an anion exchange resin in the chloride form. The chloride produced by exchange of sulphate was determined by Mohr's or Volhard's volumetric titration. The method was complicated by the apparent necessity to exchange all the cations for sodium by treatment first with a cation exchange resin. Thus two treatments were necessary and column percolation was used in both cases.

Gabrielson and Samuelson [4] prepared a cation exchange resin in the acid form for this type of analysis, titrating the released sulphuric acid with alkali.

In view of the above remarks, a method based on the determination of sulphate in the sulphated ash by shaking with the small particle size type of Zeo Karb 225 resin was developed.

Proposed resin shake method of sulphated ash for total salts in tanning materials :

Principle of the Method :

The method unlike the conventional resin percolation method, allows the determination of the 'total salts' whereas the latter may only be used for 'soluble salts'. In the conventional method, divergency of views exists as to the correct end point (pH 5.8 or 6.5), because the titration is carried out on a mixed system of acids.

The proposed method (the details of which are given below) is very simple in nature. It requires a sulphated ash solution of tanning material. The sulphated ash solution, coming in contact with the acid regenerated resin, produces H_2SO_4 equivalent to the cations present in the solution, and next the H_2SO_4 is titrated with standard Carbonate free NaOH using 'Phenolphthalein' as indicator.

In this method, there is no complexity of titrating mixed acids as with the conventional resin procedure and therefore, the end point is very sharp. The de-

termination may be made without the help of the glass electrode. The procedure is more rapid than the barium chloride gravimetric method and is useful for the determination of small amounts of salts.

Regeneration of Resin :

100 gms of base exchange resin, Zeo Karb 225 of 50 average particle size in the Na- form, was taken and regenerated. The regeneration was done in the following way :

The resin was washed on a buchner funnel with 2N NaOH (approximately). After washing, the resin was soaked in a beaker with 3-bed volume of 10% HCl which was replaced twice over a period of a day. The acid was decanted off and the residual acid was finally removed on the buchner funnel. The resin was well washed with water through the funnel until approximately neutral. Finally, it was washed with CO_2—free distilled water; the excess was drained off as far as possible, and then the resin was stored in a well stoppered bottle for future use.

Development of the method using a known standard solution :

A standard solution was prepared by weighing 0.5004 gm. $CaCO_3$ A.R. and adding exactly 20 ml. of N/2 H_2SO_4 by a pipette. The volume was made upto 1. litre in a volumetric flask. 0.35 ml. of N NaOH was added to adjust the pH to about 7.0. So, the concentration of the solution was (10+0.35)=10.35 mgm. equiv/litre.

The standard solution prepared was used to determine the salt content by the proposed method varying the size of the aliquot, shaking period, filtration and washing procedures, indicators and initial pH. Some results are tabulated overleaf :

Conclusions :

From the series of experiments described above, the following conclusions were drawn:—

(1) The 'wash procedure' and titrating the whole portion were found generally satisfactory than titrating an aliquot after shaking and making up to volume.

(2) The different periods of shaking (½ hour and 1 hour) made no appreciable difference in the result. As the object of this work was to develop a quick method for the determination of total salts, the shaking for ½ hour is quite adequate.

(3) Phenolphthalein must be used as indicator due to the great solution of the acid being titrated.

(4) 5 ml. of 1:3 suspension of the resin is adequate. An increased amount made no difference to the results.

TABLE

pH of Sol'n when shaken	Amount of resin suspension (1:3) added	Aliquot of Ca-solution	Vol. of distilled water (CO_2 free) added to aliquot before shaking	Indicator used	Fraction of contents of flask titrated	Corrected* mean titration value ml. N/20 NaOH	Mgm. equiv/litre	
							Theoretical result	Experimental result
7.0	5 ml.	50 ml.	—	Maxzuazaga	half	4.85	10.35	9.70
7.0	5 "	50 "	—	"	whole	9.75	10.35	9.75
7.0	5 "	50 "	—	"	half	4.85	10.35	9.70
7.0	5 "	50 "	—	Phenolpht-halein	whole	10.00	10.35	10.00
7.0	5 "	50 "	—	"	half	5.03	10.35	10.06
8.5	5 "	50 "	—	"	whole	9.85	10.35	9.85
8.5	5 "	50 "	—	"	half	4.85	10.35	9.70
7.0	5 "	25 "	25 ml.	"	whole	4.98	10.35	9.96
8.5	5 "	25 "	25 "	"	whole	4.98	10.35	9.96
8.5	10 "	25 "	25 "	"	whole	4.93	10.35	9.85

* Corrected for blank, factor of NaOH (1.01) and 0.05 ml. NaOH when added prior to shaking.

(5) Providing the initial pH is close to neutrality, the initial solution need not be neutralised to phenolphthalein.

(6) The method as given below definitely tends to give low results of the order of 3-4%. This was a bit disappointing but further work might improve the accuracy. It was decided however that the advantages of the method, particularly in speed, were sufficient to warrant its use in the present investigation.

Final Method Adopted :

A suitable aliquot of the sulphated ash solution was mixed with 5 ml. of 1:3 suspension of the regenerated resin in a 100 ml. volumetric flask and rotated in a mechanical shaker for ½ hour. The contents of the flask were filtered through whatman No. 42 filter paper and the filter paper washed with 2 batches of 25 ml. of CO_2 free distilled water. The whole of the filtrate was then titrated with dilute standard carbonate free NaOH solution using phenolphthalein as indicator. The titration gave a measure of the salt present in the aliquot.

A blank determination corrected for the amount of acid removed from the resin by distilled water. This blank was usually 0.05 ml. N/20 NaOH. If NaOH was required to neutralise the original analytical solution, this was done by titration with $\frac{N}{20}$ NaOH and a suitable correction applied.

Proposed Lead Nitrate Method for determining total salts in Tanning Materials.

Principle of the Method :

This method suggested by Cassidy[2] for the determination of sulphate, also requires a sulphated ash solution to start with. It consists of precipitating the sulphate ion with lead nitrate in an alcoholic medium and determining the excess of lead by a titration with standard potassium chromate solution. The end point occurs at pH 5.5 and is clearly indicated electrometrically, a glass electrode being used.

Reagents required :

(1) Indicator : Ma Zuazaga indicator which is a mixture of Brom-cresol green and methyl red.

(2) Ethanol : Absolute alcohol adjusted with HCl or NaOH to a pH of 5.5.

(3) Lead Nitrate : $\frac{N}{10}$ Solution prepared from Analar solid.

(4) Potassium Chromate : $\frac{N}{50}$ An aqueous solution prepared from analar solid.

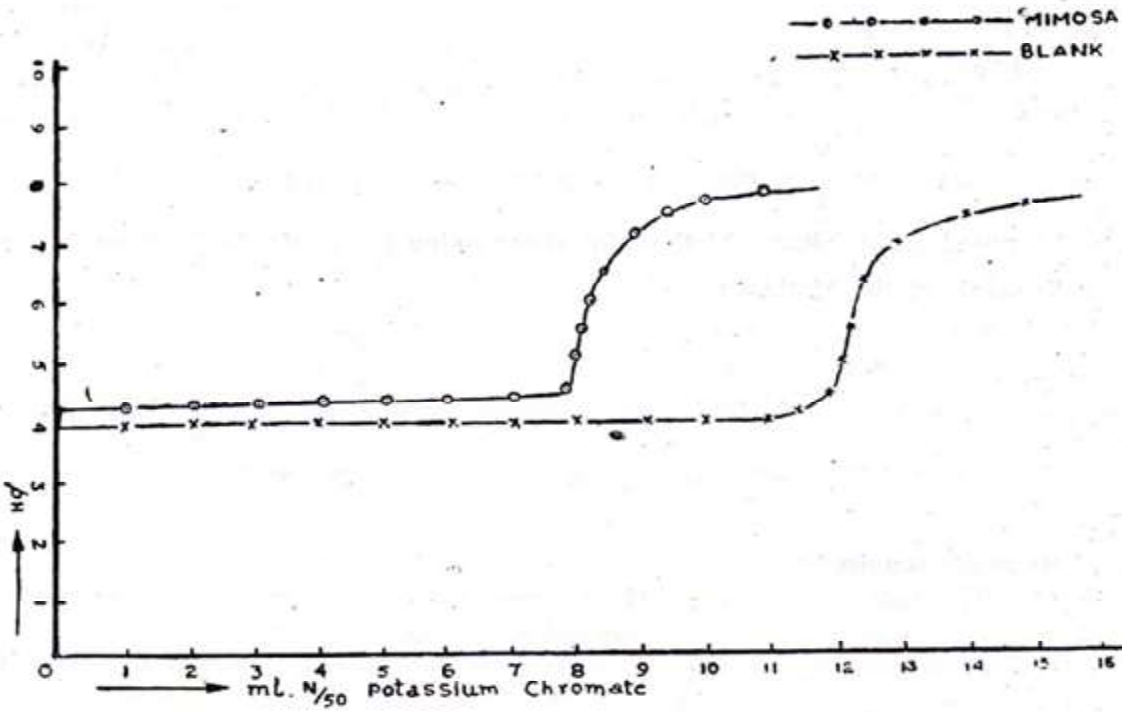
Method of determination :

A suitable aliquot (25 ml.) of the sulphated ash solution (already phosphate free and pH adjusted to 5.5) was taken in a 100 ml. beaker and 5 ml. of $\frac{N}{10}$ lead nitrate and 25 ml. of methanol were added. The solution was mixed and

was allowed to cool. It was then made upto a certain volume (100 ml.) with distilled water, mixed and filtered through a whatman No. 42 filter paper, protecting against evaporation. By pipette, 50 ml. was taken in a 100 ml. beaker and titrated with N/50 potassium chromate solution to pH 5.5, as indicator by a glass electrode.

A blank was determined using distilled water instead of sulphated ash solution. By difference, the amount of sulphate present in the solution was determined. The titration curve for mimosa is given in Fig 1 and also a blank curve obtained under the same conditions for an equal volume of the lead nitrate solution.

DETERMINATION OF $SO_4^=$ BY $PbNO_3$ METHOD - TITRATION CURVES FOR BLANK & MIMOSA



Curves similar to that of mimosa were obtained for some other tanning materials. It was seen that the blank and sample curves were very similar in shape but a smaller final titration was obtained for the sample due to precipitation of part of the $PbNO_3$ by the $SO_4^=$ present. The sample titration was subtracted from the blank to calculate the $SO_4^=$ content of the sulphated ash solution.

Centrifuging could be used instead of filtration in the detrmination.

Cassidy recommended that phosphate should be removed prior to the precipitation of lead sulphate. This was done by a procedure similar to that used

A suitable quantity of tanning material after ashing and sulphating was dissolved in hot water and 3-4 drops of 10% $FeCl_3$ solution added. The solution was mixed thoroughly, filtered through a No. 11 whatman filter paper and the filtrate was made upto a volume. To prepare for the determinations of total salts by lead nitrate method or resin shake method, the solution should be first neutralised with dilute standard NaOH solution. For the resin shake method, the amount of NaOH added at this stage is corrected later from the final titration figures of standard NaOH solution.

N.B.—Similar removal of phosphate was carried out prior to the application of the resin method for sulphated ash. The presence of phosphate in the analytical solution might have interfered with the subsequent determinations.

TABLE 2

Total Salts in Original Tanning Materials

mgm. equiv./100 gm. air dry material

Material	Moisture content of air dry material %	$BaCl_2$ Sulphated ash method	Lead Nitrate method	Resin shake method on Sulphated ash
Mimosa	12.9	39	42	37
Sumac	8.3	100	98	—
Chestnut	7.6	13	11	—
Myrabolan	11.4	45	47	44
Valonia	15.3	41	39	—

(To be continued)

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

Part IV

N. N. Guha

(*Continued from February issue*)

The Barium Chloride sulphated ash and resin column procedure for the determination of salts in vegetable tanning extracts do no give identical results and similar differences will be found between the methods developed (and also reported in the previous issue, i.e. part III) for the analysis of the sulphated ash and the resin column procedure. It is worthwhile therefore to consider in general the factors which can lead to the discrepancies:

(a) If ammonium or other volatile salts are present, they will be lost in an ashing procedure but not in the resin column method.

(b) If phosphorus is present, a portion of certain cations may be lost in the sulphated ash procedure. It is to be expected that phosphates of Calcium, Magnesium, Iron and Aluminium which may be formed in ashing would not be completely converted into sulphate by the treatment with sulphuric acid.

Part of the phosphorus may be present in an organically bound form, but it seems possible that the pH of most tanning extracts is low enough for free phosphate to be tolerated together with the alkaline earth and heavy metals. This ionic phosphate would yield phosphoric acid in the resin column method and even part of the organically bound phosphorus may be combined with inorganic bases.

Any phosphoric acid groups liberated in this way on the resin column would only be partially titrated to pH 6.5 but nevertheless the presence of phosphate should tend to raise the resin results relative to the sulphated ash figures.

(c) It is quite probable that a part of the polyvalent bases present in a liquor will be non-ionically bound into organic molecules. If this is so, one would expect this portion of the metals to be undetermined in the resin method. Ashing would liberate such metals from complex formation and thus the sulphated ash procedure would determine them.

The above comments apply equally well when comparing the resin method and lead nitrate method on the sulphated ash with the resin column procedure.

A further complication which has not been considered above is if some soluble phosphate remains even after ashing and sulphating. This was considered possible when developing the methods. For this reason, the sulphated ash solutions which were used for the developed methods, were treated with $FeCl_3$ solution and subsequent neutralisation to remove phosphate. This was probably

unnecessary step as only traces of phosphate, if any, are likely to remain in a soluble form after ashing materials containing appreciable amounts of Ca, Mg, or heavy metals.

It may be emphasised that it seems essential, with most tanning materials, extracts or spent materials, to filter after sulphating before the $BaCl_2$ is added. This point has not been mentioned in the literature, but with almost all the samples analysed, filtration was quite essential.

In considering volatility during ashing it is as well to realise that ammonium salts are not the only problem. Sodium and Potassium Carbonates also can be partly lost and as the ashes of some of the materials contain an appreciable proportion of these salts, care is necessary not to allow the temperature to raise too high particularly before sulphating. 500° C-600° C seems generally a safe limit as judged by the results obtained.

The effect of the ammonium salts is likely to be most pronounced of the factors which have been discussed and will lead to possible discrepancies between ashing and resin column procedures. A number of tanning extracts (made by laboratory extraction and dried) were analysed for their salt contents by the developed resin shake method and their ammonium salts were also determined. If the ammonium figures are added to the resin sulphated ash results, the following comparison may be made:

Mgm. equiv/100 gm. extractable solids

Material	Resin column to pH 6.5	Resin Shake method on sulphated ash plus NH_4 salts	Ammonium Salt content
Mimosa	50	49.3	4.3
Sumac	105	105	8.0
Chestnut	38	39.7	8.7
Myrabolan	69	67.6	2.6
Valonia	93	92.7	4.7

Taking the resin column figures to pH 6.5 as likely to be more accurate than the pH 5.8 results, an extremely good agreement is obtained between the ashing and column procedures.

This situation appears to be excellent until one considers the question of phosphate. The amount of this anion was found in the above extracts to be in the range of 3-9 mgm. equiv. per 100 gm. extractable solids. Thus one would expect to loose a high proportion of the salts as phosphates (particularly perhaps calcium), when these materials were ashed.

It was considered desirable to check this point experimentally.

$Ca_3(PO_4)_2$ Experiment

The purpose of the experiment was to investigate whether a sample of $Ca_3(PO_4)_2$ salt could be estimated quantitatively by sulphating as usual and precipitating with $BaCl_2$ solution.

100 mgm. of $CaCO_3$ was taken in platinum dishes in duplicate and an excess of H_3PO_4 was added to convert it completely into Calcium phosphate. The contents of the dishes were evaporated on the steam bath, ignited and sulphated as usual. The residues were treated with hot distilled water and filtered. Hydrochloric acid and $BaCl_2$ solution were added to the filtrates and the $BaSO_4$ precipitates filtered off and ignited in the usual way. The water insoluble residues on the filter papers were ignited and weighed as $Ca_3(PO_4)_2$. The average results of the duplicates are given below:

Calcium originally taken	2 mgm. equiv.
Soluble portion (returned as $BaSO_4$)	0.87 mgm. equiv.
Insoluble portion (not returned as $BaSO_4$)	1.16 mgm equiv.

This experiment shows that under the conditions employed in the present investigation, rarely half of the Calcium phosphate present in the ash of a tanning material will be returned in the sulphated ash method for the determination of salts. the remaining portion not being decomposed.

Possibly more than two treatments with Conc. H_2SO_4 would convert even more of the phosphate to soluble phosphate.

The results of the experiments discussed above is contrary to the results giving good agreement between figures for total salts (including ammonium salts) by the resin column and ashing procedures. The good agreement which was obtained can hardly be regarded as fortuitons in view of the five different samples involved. It seems safe to conclude therefore that in general, there should be no significant discrepancy between the results for salts obtained by the two different types of technique provided the presence of ammonium salts is taken into consideration.

Up to this point the possible reasons for discrepancies between ashing and resin column procedures have been considered on the assumption that the only effect of the resin column is one of ion-exchange. In other words the possibilities mentioned are all predictable on th basis of the correct theoretical functioning of the ion exchange column.

The greatest point of contention in the earlier work was due to absorption of acid on the column. which is a different aspect. It seems quite definite that, in the earlier work at least, this effect was pronounced with certain materials. In some cases however it would obviously be difficult to judge the main cause of differences between ashing and resin column procedures. As in the earlier work the main effect was a low result by the resin procedures, it is obvious that if errors of the type given in (a) and (b) above were present, they were outweighed by either the acid absorption or the possibility discussed under (c).

It seems reasonable to point out that a low result by a resin column method

is not necessarily due to absorption of acid. The non-ionic metal effect could be checked quite easily however, as if it occurred the percolate would have an appreciable ash content.

It is quite probable that no large error has occurred due to absorption of acid. The modern Zeo-Karb-225 seems not to suffer from this defect using a reasonably short time of percolation.

The effect of ashing and sulphating iron and aluminium salts was investigated separately and was found that only a fraction of the iron and aluminium was left as the sulphate after ashing. Thus only a small proportion of the total iron and aluminium is likely to be included in the total salts based on an ashing procedure. These metals are quite likely to take part in complex formation in the original liquor and therefore may not be returned by the resin column method either. Therefore the iron and aluminium may not give differences in the results obtained by the two procedures.

The absolute accuracy of the resin shake method was studied by the addition of a synthetic mixture of salts to the ash of vegetable tanning materials and determination of the increased salt contents. The results show that the method is fairly accurate and the reproducibility is also found to be adequate.

The tendency of the resin shake method to give low results may possibly be overcome by suitable modifications. A more thorough washing of the resin on the filter may be required. It seems probable that $FeCl_3$ treatment for the removal of phosphate is an unnecessary step which certainly involves complications in neutralising the solution and further correction of the results for the added amount of alkali. If the treatment may be omitted, the method will be even more convenient and rapid than as used in the present study.

(To be continued)

BROKERAGES DOWNGRADE INDIA'S GDP GROWTH PROJECTIONS FOR FY'22 AMID RESURGENCE OF COVID CASES

With the resurgence of COVID-19 cases posing risks to economic recovery, leading brokerages have downgraded India's GDP growth projections for the current fiscal year to as low as 10 per cent on local lockdowns threatening fragile recovery. While Nomura has downgraded projections of economic growth for the fiscal year ending March 2022 to 12.6 per cent from 13.5 per cent earlier, JP Morgan now projects GDP growth at 11 per cent from 13 per cent earlier. UBS sees 10 per cent GDP growth, down from 11.5 per cent earlier and Citi has downgraded growth to 12 per cent.

India's GDP growth had been on the decline even before the pandemic struck earlier last year. From a growth rate of 8.3 per cent in FY'17, the GDP expansion had dipped to 6.8 per cent and 6.5 per cent in the following two years and to 4 per cent in 2019-20. In the Covid-ravaged 2020-21 fiscal (April 2020 to March 2021), the economy is projected to have contracted by up to 8 per cent. The low base of FY'21 was seen aiding a double-digit growth rate in the current fiscal before moderating to 6.8 per cent in FY'23.

The RBI has projected FY'22 GDP growth at 10.5 per cent, while IMF puts it at 12.5 per cent. The World Bank sees 2021-22 growth at 10.1 per cent.The pandemic caseload in India has been surging hitting new records everyday for the past fortnight. The latest official number puts the daily infections at 2.61 lakh in the past 24 hours and 1,501 deaths.

"India is in the midst of a resurgence of COVID-19 cases, with the daily case count two times the 2020 peak. If the efforts to get the virus under control are successful over the coming weeks, we think recovery should gather steam from Q2 FY'22 onward," UBS said revising its FY'22 real GDP growth forecast to 10 per cent year-on-year (previously 11.5 per cent).

UBS expected current mobility restrictions to remain in place until end-May and then be lifted, and assume activity is largely back to normal by end-June. "Even as these measures are likely to dampen economic activity, we think the impact will be much lower than in 2020, as containment measures are quite targeted and households and businesses have adjusted to the 'new normal'."

In its alternate risk scenario, where disruptions could last longer, there is a risk India's real GDP could slow by a much larger magnitude, to 3-5 per cent in FY22, it said.Citi Research said while restrictions are much less stringent compared to last year, they are rising as Covid cases continue to mount.

"Covid cases are concentrated around economically important states like Maharashtra, Gujrat and Delhi. Accounting for both the restriction and sentiment channel, we have revised down our FY'22 real GDP forecast to 12 per cent year-on-year (vs 12.5 per cent earlier). Downward revisions are led more by services and private consumption than industry," it said. If the Covid situation, it said, is not brought under control then there could be a period of multiple growth revisions like in last year.Stating that it sees a 'W' shaped recovery and not 'V' shaped, Citi said Q1 FY'22 real GDP growth is seen 28 per cent.Credit Suisse said daily new cases are double of last peak in September 2020.

"The spike in active cases across most districts (is) causing panic and shortages," it said adding the rapid spread means it will be less protracted too.Unlike the stringent nationwide lockdown imposed last year to contain spread of coronavirus, "lockdowns are likely to be localised, short-lived, and less stringent than last year," it said.

Stating that Maharashtra lockdown is an aberration, Credit Suisee said the it would shut 15 per cent of GDP for 15 days.Other states are using night curfews, limits on large gatherings and weekend restrictions."If GDP restrictions are 5 per cent ex-Maharashtra till end-May, and Maharashtra lifts by end-April, FY22 impact will be 1 per cent," it said. "Macro supportive, business momentum unlikely to hurt if restrictions are short-lived."

Wall Street brokerage Bank of America (BofA) Securities said the spike in coronavirus cases poses a risk to economic recovery, and the GDP is unlikely to achieve the earlier projected 3 per cent growth for March quarter 2020-21.Stating that a month-long nationwide lockdown can shave off 100-200 basis points off the GDP, it said growth is still weak, amplified by the

steep fall in key economic activity indicators and the anaemic loan growth, and the surging pandemic cases is only increasing the worries on the growth front.Fitch Solutions said there is a third wave of Covid-19 infections creeping into India.

After some success in curbing the virus considerably, India's economy had returned to functioning normally by the second half of 2020. "However, over recent weeks, the virus has started spreading rapidly, partly due to complacency on the social distancing measures and mask wearing policies," it said. "India lags far behind in immunisations per capita. Unprecedented crisis has highlighted the need to increase investment in the healthcare sector in the country."

(Source : Economic Times – 18/03/2021)

GOVT AMENDS INSOLVENCY LAW; SPECIAL PACKAGE FOR MSMES

Seeking to provide a quicker and value-maximising outcome for stressed MSMEs, the government has introduced a pre-packaged resolution process for such enterprises by amending the insolvency law. Now, Micro, Small and Medium Enterprises (MSMEs) can seek resolution for their stress through the pre-packaged process under the Insolvency and Bankruptcy Code (IBC).An ordinance was promulgated to amend the IBC on April 4.

Many MSMEs have been impacted by the coronavirus pandemic and experts opined that the latest amendment, which comes less than two weeks after the suspension of certain IBC provisions ended, is a welcome move.

The suspension — wherein fresh insolvency proceedings were not allowed for a year starting from March 25, 2020 – was implemented amid the coronavirus pandemic disrupting economic activities.According to the ordinance — whereby the pre-packaged resolution process has been introduced — it is considered necessary to urgently address the specific requirements of MSMEs relating to the resolution of their insolvency due to the unique nature of their businesses and simpler corporate structures.

Generally, under a pre-packaged process, main stakeholders such as creditors and shareholders come together to identify a prospective buyer and negotiate a resolution plan before submitting the plan to NCLT for formal approval.All resolution plans under the IBC need to be approved by the National Company Law Tribunal (NCLT). As per the ordinance, it is considered expedient to provide an efficient alternative insolvency resolution process MSMEs to ensure a quicker, cost-effective and value maximising outcome for all stakeholders, in a manner which is least disruptive to the continuity of their businesses and which preserves jobs.

"... in order to achieve these objectives, it is considered expedient to introduce a pre-packaged insolvency resolution process for corporate persons classified as micro, small and medium enterprises," it added.Soumitra Majumdar, Partner at J Sagar Associates, said the IBC Amendment Ordinance 2021 makes available the pre-packaged route to genuine and viable cases, to ensure least business disruption. "While modelled on debtor-in-possession approach, it vests significant consent rights to the financial creditors, such that the mechanism cannot be misused by errant promoters."Further, adopting the plan evaluation process akin to Swiss Challenge, it retains competitive tension such that promoters propose plans with least impairment to rights and claims of creditors," Majumdar noted.

L Viswanathan, partner at Cyril AmarchandMangaldas, said the government has cautiously introduced the pre-pack regime only for the MSME sector at this point of time, which is welcome."The pre-pack regime comes with procedural checks and balances including applicability of Section 29 A and two-third creditors' consent for both initiation and approval of the base resolution plan.

"Participation of eligible existing promoters is encouraged with the board continuing in control and the debtor proposing the base resolution plan," he added.Broadly, Section 29 of the IBC seeks to prevent defaulting promoters from taking back their companies under the resolution process.

He also said the creditors' committee can convert the pre-pack process to the usual corporate insolvency resolution process by 66 per cent majority at any time, or require the board to cease control through intervention of the NCLT in case of fraud or mismanagement by the existing management. Misha, partner at Shardul Amarchand Mangaldas & Co, said the intent of the government appears to be to provide for an alternative and efficient resolution mechanism especially for MSMEs by introduction of a new chapter in the statute.This is certainly a welcome step although it was hoped that such a framework will be made available to non-MSMEs as well, Misha added.

Rajiv Chandak, partner at Deloitte India, said the introduction of pre-pack framework was supposed to coincide with lifting moratorium on filing fresh cases of insolvency."Pre-packs will help corporate debtors to enter into consensual restructuring with lenders and address entire liability side of the company. Government needs to further augment the NCLT's infrastructure so that pre-packs can be implemented in time-bound manner," he said.

During the one-year suspension period starting from March 25, 2020, Sections 7, 9 and 10 of the IBC were suspended to provide relief for companies hit by the pandemic.Sections 7, 9 and 10 deal with initiation of corporate insolvency resolution process by a financial creditor, operational creditor and corporate debtor, respectively.

(Source : PTI – 05/04/2021)

ATMANIRBHAR AND PLI: WHY MODI'S AMBITIOUS MANUFACTURING TARGETS ARE UNACHIEVABLE

Govt's focus is on pushing local production rather than becoming a global hub for the world, which are two different things.

Recently, Prime Minister Narendra Modi met over 40 CEOs across broad swathes of industry, ranging from makers of mobile devices, auto components, food products to telecom networking equipment and pharmaceuticals.The agenda: To discuss how to make India an integral part of the global supply chain.

The focus of the discussion would be the much touted yet not so well understood production-linked incentive scheme (PLI), the centrepiece of the government's drive to massively boost the manufacturing sector.To do so, the government has created a war chest of over Rs 197,000 crore to be paid out as incentives to over 14 industries in five years.

There are three objectives to the scheme, two explicitly stated, one implied.The first is to enhance India's domestic manufacturing capabilities under the Atmanirbhar (or self-reliance) label. The second is to transform the country into a global export hub, building on the opportunity created by multinationals seeking to hedge their dependence on China. The third and less explicitly stated goal is to increase domestic value addition in these sectors, so that the burgeoning import bill is reduced. The goal is to become net foreign exchange-surplus in these sectors.But can the PLI scheme achieve these multiple objectives?

A global player such as Apple Inc is betting big on the scheme.Some 10 per cent of its production capacity is likely to shift to India through its Electronic Manufacturing Service or EMS partners, Pegatron, Foxconn and Wistron, which have been selected under the PLI programme.

Others are sceptical, suggesting that PLI is, at best, an import substitution programme under a new label and its ambitious value addition and export targets are fundamentally unachievable.PLI is a successor of sorts to the underwhelming Merchandise Export from India Scheme, which was wound up in December 2020 because of its transgressions of World Trade Organisation rules.

To ensure that PLI does not meet the same fate, the only mandatory eligibility requirement is to commit to incremental investment and sales of manufactured goods over five years.Companies have to submit figures on exports for each year as well as their value addition plans, but failure to achieve these targets does not carry any penalty.

The uncertainty lies in the fact that this data will be "monitored" by a committee of secretaries that is empowered to make changes to targets and incentives. So far, details of incentives have been notified for six of the 14 sectors under the scheme (see table).

THE BIG THREE: NOTIFIED PLI SCHEMES

No.	Sectors	Implementing ministry/department	Financial outlays (₹ crore)
1.	Mobile Manufacturing and Specified Electronic Components	MEITY	40,951
2.	Critical Key Starting materials/Drug Intermediaries and Active Pharmaceutical Ingredients	Department of Pharmaceuticals	6,940
3.	Manufacturing of Medical Devices		3,420
	Total		51,311

Three classes of manufacturers under the first sector offer an idea of the anomalies in the scheme — telecom equipment, laptops and mobile devices.For telecom equipment, the government says it is targeting incremental sales of Rs 2.4 trillion in four years, but expects 80 per cent of these sales to be earmarked for exports.

The scheme has not spelt out the level of value addition, but based on talk with stakeholders the "expectation" is that it should be around 25 per cent.Consider these requirements against the current position.India buys $10 billion worth of telecom equipment annually, of which only a third is made in India, and even in that domestic production has a value addition of just 10-15 per cent. And the total value of exports of the PLI-linked telecom gear is Rs 5,000 crore."A 20-fold increase in exports in five years is not possible, unless there is some magical large investment being planned by someone for exports, which we do not know."Also, the mandatory minimum investment you need to make for all players together is Rs 600 crore only to get PLI," said a senior executive of a global telecom equipment maker.

The government expects investments to be five times the mandatory requirement.And the PLI incentive is capped at twenty times their total incremental investment.However, telecom equipment mak□ers suggest that the focus is on pushing local production rather than becoming a global hub for the world, which are two different things.

If the government has announced a high export target, he added, it is merely to push companies under the PLI scheme to become foreign exchange-neutral, with imports of components being balanced by exports of finished products — even though the value addition "expectation" is not so high. A 10 per cent increase in value addition will help the government save around Rs 24,000 crore on the import bill.It is no rocket science to understand that an increase in the value of local production will reduce the import bill.But it is unclear how this will work in practice when the latest Budget imposed higher duties on a range of components as a result of which the cost of end-user equipment such as radios, microwaves and basebands have gone up by 5 to 6 per cent.

On the other hand, the government has made imports of these products through countries with which India has signed Free Trade Agreements (FTAs), such as Vietnam, more attractive.Simply put, that means that for many of the key finished products the advantage of the incentive scheme has been neutralised."Many telecom gear makers are rethin□k□ing whether to make them in India at all or import them from countries like Vie□tnam through FTAs and pay zero duty," said a senior executive of a telecom gear maker. As for exports, many global telecom gear makers have already made moves to shift some capacity from China.Samsung has gone to Vietnam and Ericsson is building up a large plant in the US to cater to the local market. India has the potential still to cater to markets such as Southeast Asia, Africa or even Australia.To do so, the country needs a component ecosystem given that 70 per cent of these inputs are imported from China.

"But Chinese component players will only come in India if the volumes are big enough and they are given incentives (such as a PLI scheme) to counter the higher costs of manufacturing in India so that they can export globally as well as supply for the Indian market."Without resolving these two, we don't think the targets can be achieved," a senior executive with a European gear maker pointed out. Others have suggested that a certain portion of the PLI scheme should be carved out to provide incentives to component makers.

(Business Standrad – 12/03/2021)

-: JILTA :-

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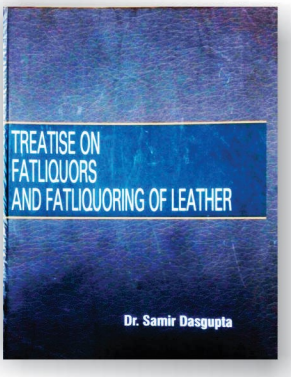

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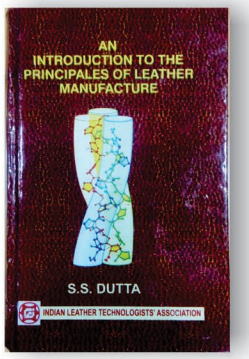

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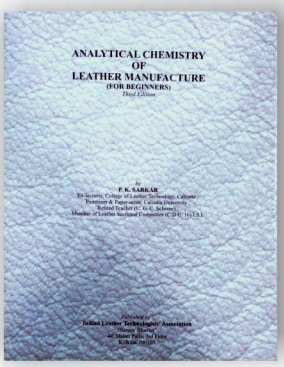

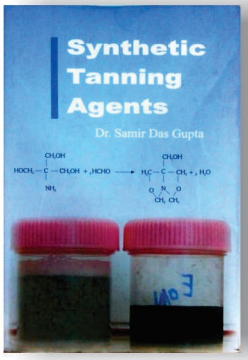

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Author
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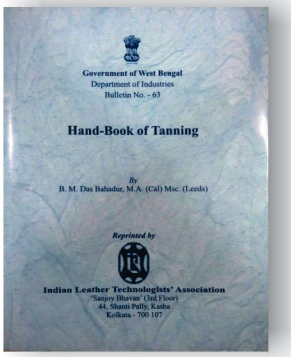

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History and Activities of Indian Leather Technologists' Association

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.
- As the part of many social activities ILTA has donated Rs. 1 lac to Consul General of Nepal towards relief of earthquake effected of Nepal on 15th Sept, 2015.

INTERNATIONAL & NATIONAL SEMINAR

- ILTA is the Member Society of International Union of Leather Technologists & Chemists Societies (IULTCS), a 115 years old organization and for the first time the IULTCS Congress was organized in January 1999 outside the developed countries in India jointly by ILTA and CLRI.
  2017 IULTCS Congress is scheduled to be held in India again.
- 8th Asian International Conference on Leather Science & Technology (AICLST) was organized by ILTA in 2010 during its' Diamond Jubilee Celebration year.

SEMINAR & SYMPOSIUM

ILTA organizes Seminar & Symposiums on regular basis to share information, knowledge & latest development and interactions for the benefit of all concerned. Few are as under :

- Prof. B. M. Das Memorial Lecture every year during the Foundation Day Celebrations on 14th August every year.
- Sanjoy Sen Memorial Lecture on 14th January every year, the birthday of our late President for several decades.
- Prof. Moni Banerjee Memorial Lecture on 15th March every year, the birthday of this iconic personality.
- Seminar on the occasion of India International Leather Fair (IILF) at Chennai in February every year.

It has also organized :

- Prof. Y. Nayudumma Memorial Lecture.
- Series of Lectures during "Programme on implementing Emerging & Sustainable Technologies (PrIEST)".
- Seminars in occasion of India International Leather Fair, 2014 and 2015 at Chennai etc. 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.

PUBLICATION

ILTA have published the following books :

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

ILTA has a good Library & Archive enriched with a few important Books, Periodicals, Journals etc.

AWARDS OF EXCELLENCE

- ILTA awards Prof. B. M. Das Memorial, Sanjoy Sen Memorial, J. M. Dey Memorial and Moni Banerjee Memorial Medals to the top rankers at the University / Technical Institute graduate and post graduate levels to encourage the brilliants to evolve with the Industry.
- 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).

LEXPOs

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 & Durgapur, ILTA has organized LEXPO at Bhubaneswar, Gangtok, Guwahati, Jamshedpur and Ranchi.

MEMBERS

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

ESTABLISHMENTS

In order to strengthen its activities, ILTA have constructed its own six storied building at 44, Shanti Pally, Kasba, Kolkata – 700 107 and have named it "Sanjoy Bhavan".
This Association is managed by an Executive Committee duly elected by the members of the Association. It is absolutely a voluntary organization working for the betterment of the Leather Industry. None of the Executive Committee members gets any remuneration for the services rendered but they get the satisfaction of being a part of this esteemed organization.

ILTA
Since 1950

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

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