

PLASTICS INDIA

A journal for the growth and development of plastics trade & industry

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Dear Friends,

There has been a global slowdown in most major economies, with India being no exception. Growth in United States, China, European Union and Japan has also gone down in 2019. One of the major contributing factors to the current slowdown in India in 2019 is the crisis in the NBFC sector. Domestic credit conditions remain tight as market concerns in the shadow banking sector have persisted too long. India's GDP growth slipped from 5.8% in January – March'19 to 4.5% in July – September quarter same year after the crisis in the NBFC sector broke out in September '18. Market expects the growth to further slip.



Inflation has taken an upswing owing to a rise in the prices of vegetables owing to untimely heavy rains. However, this is looked upon as a temporary phenomenon. Prices are expected to fall once the new produce enters the market.

Our government has taken a serious note on the slow growth in the economy and rise in prices of essential items. It has already started taking positive steps to raise growth and reduce prices of essential items. Corporate taxes have already been reduced leaving more money in the hands of industry for investment. Imports of food items are in the pipe line to reduce prices. The RBI is also likely to reduce lending rates to make capital more easily available. It will take some time before people feel the benefits of government's positive action.

In spite of all the turmoil in different segments of the economy, the plastic industry will continue to grow as they manufacture everyday items required by the common man.

We look forward to your suggestions on how to improve the quality of this magazine.

Wishing all members A Happy Christmas and Prosperous New Year 2020.

With best wishes,

Manish Singhania

Co-Editor

Presidential Address

Dear IPFIans,

India's G.D.P. growth is falling due to slowing down of economy. Moody's Investor Service has slashed India's economic growth forecast to 5.6% for 2019, saying Government measures do not address the widespread weakness in consumption demand. They said, "India's economic slowdown is lasting longer than previously expected."

In October, Moody's had attributed the deceleration to an investment-led slowdown that has broadened into consumption, driven by financial stress among rural households and weak job creation. In its Global Macro Outlook 2020-21, Moody's said economic activity in India will pick up in 2020 and 2021 to 6.6 per cent and 6.7 per cent, respectively, but the pace to remain lower than in the recent past.

"India's economic growth has decelerated since mid-2018, with real GDP growth slipping from nearly 8 per cent to 5 per cent in the second quarter of 2019 and joblessness rising. Investment activity was muted well before that, but the economy was buoyed by strong consumption demand. What is troubling about the current slowdown is that consumption demand has cooled notably," it said.

The Modi government has undertaken a number of measures to arrest the growth slowdown. In September, it announced a cut in the corporate tax rate to 22 per cent from 30 per cent. It also lowered the tax rate for new manufacturing companies to 15 per cent to attract new foreign direct investments.

The government's other initiatives include bank recapitalization, the mergers of 10 public sector banks into four, support for the auto sector, plans for infrastructure spending, as well as tax benefits for startups.

"However, none of these measures directly address the widespread weakness in consumption demand, which has been the chief driver of the economy," it said.

The fall in GDP growth is sudden and dramatic. Till now, while only businesses were talking about the slowdown, it is now a reality for the country. People worry about how bad things are and is this bottom or the beginning of a slowdown.

There is concern about the speed and nature of the government and industry's response, and will these actions turnaround things immediately, or not.

These concerns and perceptions need answers as they affect consumer confidence and consumption. Acknowledging the problem is not a sign of weakness or acceptance of any blame. It's a fact that leadership in the corporate sector has failed to recognize the major transition taking place in their sector that has affected consumer demand.

It is equally important to set the right expectations for a return to normalcy or a turnaround in the growth. The massive mandate this government received shows the expectation of the common man. Not setting the expectation right or distorting the timelines will not serve to inspire consumer confidence. People are pragmatic and patient if they understand the time it will take to come out of the current situation. They know there are no shortcuts out of slowdowns.

To kick-start the consumption cycle, money has to go into the common man's pocket. This can happen by reducing income tax for the lowest slab, as recommended by the Direct Tax Code report. It can be done by making GST filing quarterly for MSMEs with less than Rs 10 crore turnover to ensure they survive the slowdown. The GST Council can look at reducing rate slabs and reduce the overall burden on corporates.

Wishing all members A Happy Christmas and Prosperous New Year 2020.



A handwritten signature in black ink, appearing to be 'Ramesh Kr. Rateria'. The signature is stylized and written in a cursive-like font.

Ramesh Kr. Rateria

President

Secretary Message

Dear Members,

Year 2019 is coming to an eventful close and by the time this edition of Plastics India reaches you, year 2020 may have commenced. I, therefore, wish all members and their families a very Happy and Prosperous New Year 2020.

Year 2019 was an eventful and controversial year for the plastics industry. However, the Federation continued to work for the welfare of its members. A new committee was formed during the last AGM which has already started functioning. In a very short time 26 new members has been added to our membership list and more members will be added in the coming months. Members Directory that was last printed in 2016 will be again published in early 2020. In this connection, I request all members to update their membership particulars like email id, mobile no., phone no., address, name of representatives, activity so that the correct information can be printed and circulated to members. This will facilitate better communication amongst members. Since this volume will have wide circulated, amongst both members and non-members, members are requested to release their advertisement in this volume of the magazine. An advertisement in this volume will give good mileage to the member.

On 19th November 2019 a Scheme for setting-up of Plastic Parks was held at Shastri Bhawan, New Delhi. The meeting was held under the Chairmanship of Secretary (C & PC), Govt. of India. Shri Pramod Kr. Agarwal, Vice President, IPF represented the Federation in the said meeting.

Director, Micro, Small & Medium Enterprises, Govt. of West Bengal has written to the Federation to nominate three members who will represent the Federation on the working group on regulations of plastics bags and item manufactured below 20 micron. As per their request the Federation has nominated three representatives from the Federation.

The MD, WBIDC has invited the Federation to the Bengal Business Conclave to be held at Digha on December 11-12, 2019. The Conclave was held at the New Convention Centre at Digha.

IPF & IPI (Kolkata Chapter) jointly organised technical lectures on "Latest Trends in Injection Moulding Machines" & "Oil Handling with Contamination Management" at the Park Hotel on 13th December '19 at 6.30 pm followed by cocktail dinner. The speakers were Mr. Ramesh Varadan from Vizumi Precision Machinery and Mr. Arun Vijay from Shell Lubricant. There were no registration charges. A large number of members attended the Technical Session.

A steering committee has been constituted by CIPET under direction of DCPC for nominating representatives /stakeholders from leading Associations to provide direction and support in functioning of the sub-committee on "Chemical & Petrochemical Vertical" constituted by the Central Institute of Plastics Engineering & Technology, Chennai. IPF has been nominated as one representative from the plastic sector.

The 5th edition of CAPINDIA was held at Mumbai from December 2-4, 2019 at the Bombay Exhibition Centre, Mumbai. IPF had extended its support to this event. An IPF pavilion was set up in the exhibition where 8 IPF members booked stalls. Many foreign buyers and sellers participated in the exhibition. An extensive Buyers Sellers Meet was Conducted during the event.

The Federation organised a Full Day Seminar on GST on 18th December 2019 at Park Hotel, Kolkata. The Seminar was held on contributory basis with around 150 members attended the same. The speakers were Ms Nandini Ghosh IAS Senior Jt. Commissioner, Dept. of Commercial, GoWB, Ms. Bipasa Chatterjee, Assistant Commissioner, Dept. of Commercial Taxes, GoWB Taxes, GoWB, Mr. Vimal Jain, Mr. Arun Agarwal and Ms Suruchi Agrawal.

The Federation is planning to hold a Seminar on "Plastics Waste Management" during last week of January 2020. Senior officials from West Bengal Pollution Control Board have agreed to participate in the same and will also address the audience. Details of the Seminar will be emailed to members once the programme schedule is finalised. Wishing all members A Happy Christmas and Prosperous New Year 2020.

With best wishes



Sisir Jalan

Hony. Secretary



IPF Participation in



2nd - 4th December, 2019
Hall No.3, Bombay Exhibition Centre
Goregaon, Mumbai

5th CAPINDIA 2019, under the aegis of the Department of Commerce, Government of India, supported by Department of Chemicals and Petrochemicals, Government of India and organised jointly by PLEXCONCIL, CHEMEXCIL, CAPEXIL & SHEFEXIL was held from 2 Dec to 4 Dec 2019 at Bombay Exhibition Centre, Goregaon, Mumbai.

It is slated to be one of the largest sourcing and networking events for the Chemicals, Plastics, Construction & Mining Industries and Allied Products. The exhibition was held for 3 days spread over 7000 sqm Over 500 Exhibitors covering manufacturers / exporters showcasing a range products under the purview of CHEMEXCIL, PLEXCONCIL, CAPEXIL and SHEFEXIL participated.

Product included Dye, Pigments, Textile Auxiliaries, Chemicals, Cosmetics, Toiletries, Soaps & Detergents, Plastics & Plastics Machineries, Packaging Items, Construction & Mining Products and Shellac & Forest Products.

Over 10,000 business visitors including Merchant Exporters & Over 400 Overseas Buyers visited the exhibition.

Organisers of exhibition arranged : BUYER SELLER MEET – for exhibitors only,

Networking Opportunities, Branding and Partnership Opportunities, Industry Related Seminars

IPF had a 36 Sq meter stall where 7 manufacturer from Kolkata participated by way of booking panel under IpF kiosk. The arrangements were wonderful done by Team IPF. The exhibition was attend by Mr. Sisir Jalan, Hony. Secretary, Mr. Amit Kr. Agarwal, Hony. Jt. Secretary, Mr. Ashok Jajodia, Past President and Mr. Saurabh Garodia, Executive Committee Member and Mr. Nikunj Bhaia of Neptune Plastics



SEMINAR ON GOODS AND SERVICES TAX (GST)

The Federation organised a Full Day Seminar on GST on 18th December 2019 at Park Hotel, Kolkata. The Seminar was held on contributory basis with around 150 members attending the same. The speakers were Ms Nandini Ghosh IAS Senior Jt. Commissioner, Dept. of Commercial, Taxes, GoWB assisted by Ms. Bipasa Chatterjee, Assistant Commissioner, Dept. of Commercial Taxes, GoWB, Mr. Bimal Jain, Mr. Arun Agarwal and Ms Suruchi Agrawal. Speakers spoke on Restrictions in availment of Input Credit Tax, New Return filing procedures, Dispute Resolution Scheme, Brief on Advance Ruling and latest judicial pronouncements effecting plastic industry and Adjustments in GST Annual Return and Audit Report and its impact on the next financial year; Speakers also answered various questions raised by the members. The Seminar was well attended.



SEMINAR ON GOODS AND SERVICES TAX (GST)



MEMBERS SPEAK

MR. LALIT AGRAWAL
DIRECTOR – GLEN INDUSTRIES PVT. LTD.

EXPORT OPPORTUNITIES FOR PLASTIC PACKAGING PRODUCTS FROM INDIA

The two basic product types offered by the global plastic packaging industry are rigid and flexible packaging. The products can be produced by any manufacturing process be it injection, extrusion, blow or Roto. Blow and Roto moulded products have very little export potential due to very high volume they occupy thus the freight component will make them unviable to be shipped across the globe. Export of packaging products essentially comprise of injection or extrusion based. They find application in food and beverages, industrial packaging, household products, personal care, medical etc. Expansion of food and beverage industry is the driving force for the global plastic packaging market. Plastic offers a cleaner, tougher and more appealing form of packaging for the food and beverage industry thereby generating quick rate of growth in demand worldwide. The physical advantage that plastics provide in terms of strength and durability cannot currently be equated by any other material for the same price.

Rigid packaging has led and is expected to continue leading the global plastic packaging market. However, one of the key drivers augmenting the global packaging market currently is the growing demand for flexible packaging. This form of packaging is finding greater scope of use in multiple applications thanks to developments that have increased their tensile strength and toughness. Flexible packaging also offers the storage of greater volume of products in smaller spaces as it takes up minimum space and weight when compared to its content.

The global plastic packaging market is expected to expand at a CAGR of 5.3% within a forecast period of 2013-2020, in terms of revenue. The revenue is expected to touch US\$ 370 billion by the end of 2020. Therefore, there is a huge export potential for these packaging products out of India to the international market which is vastly untapped and China occupies a predominant position. The potential has its challenges too.

The major advantages India has for exporting packaging products are: -

1. Availability of cheap labour
2. Availability of skilled manpower at relatively lower cost
3. Availability of locally produced commodity polymers at lower than landed cost of imported polymers
4. Locally produced injection and extrusion machines at lower than international prices

The major market for plastic packaging products is USA, Europe, middle east and Australia. The competition is mainly from China, Turkey, Vietnam and Malaysia. China enjoys maximum share of the international trade in these products while India's share has been miniscule. Turkey on the other hand has improved its share of the international trade.

The per capita plastic consumption in USA and Europe is far higher than rest of the world. India's consumption is 10% of USA while China is 50% of USA. Packaging products constitute 35-40% of the overall plastic consumption. Therefore, the potential for export of plastic packaging products is quite large.

However, there are major challenges to be competitive in the export of plastic packaging products which are as below :

1. Availability of locally manufactured specialty grades of polymers. Indian producers are concentrating their efforts in manufacturing commodity grades as specialty grades still do not offer high volumes locally. However, this should not be deterrent as producers in countries like Korea, Taiwan, Malaysia, Thailand and Abu Dhabi have specialised in the specialty grade polymers and are able to command premium over the generic grades. However, for the Indian producers such imports dependence leads to long lead time, higher working capital requirement, and higher cost of raw material due to addition of freight and clearing charges into the cost.
2. Higher logistic and freight cost to destination countries from India. The packaging products are voluminous cargo in terms of loading in the container. Therefore, unit freight cost is an important factor in overall landed cost of the product to the buyer.
3. Lack of proper designing, development and manufacturing facilities for the moulds, tools and dies locally. For these services, Indian manufacturers are largely dependent on suppliers from China, Taiwan, Korea and European companies.
4. Lack of awareness about health and hygiene factor for packaging products amongst industries and unwillingness to implement health and hygiene standards in factories.

Import dependence for the raw material can add to the overall cost by USD 100 per MT. Higher logistic and freight cost to destination countries from India compared to competitor countries can make the landed cost of the finished product higher by USD 100 per MT. The average selling price of packaging products is about USD 1000-1500 per MT higher than the raw material cost. Thus, Indian manufacturers are at a disadvantage of USD 200 per MT in the international market when using specialty grades of polymers.

New entrepreneurs planning to enter into packaging products manufacturing for exports should locate their units preferably near to port to reduce the export and import logistic cost.

Industries associated with packaging products specially catering to food sector should be very particular for having proper food safety management system for their units. Various standards related to food safety management are: -

ISO 9001: 2008 for Quality Management System

HACCP IS 15000: 1998 for hazard Analysis and Critical Control points

ISO 22000: 2005 for Food Safety Management System

Additionally, units can opt for ISO 14000 Environment Management System.

Advantage of implementing various standards are as below: -

- Sets standards and goals
- Reduces errors and defects
- Marketing opportunities
- Improved quality and services
- Fewer rejections, complaints and returned products
- Highlights deficiencies to management
- Provides continuous assessment and improvements
- Better customer satisfaction
- On time delivery improvements
- Independent audits demonstrate commitment to quality.

FIVE FASCINATING FACTS ABOUT PLASTICS IN HEALTHCARE

This summer, the Plastics Industry Association (PLASTICS; Washington, DC) published the latest edition in its Plastics Market Watch series—Watching: Plastics Contributions to Healthcare. Here are five insights on the fundamental role that plastics play within the healthcare ecosystem pulled from the report’s executive summary. The full report can be purchased on the PLASTICS website.

Seeing is believing: 75% of American adults use plastics every day to see, whether that’s using eyeglass frames, lenses or contact lenses, which are typically made of plastic.

The blue wrap: In nearly every healthcare setting, from the dentist’s chair to a surgical suite, so-called blue wrap is used to protect equipment. Why? The polypropylene-based material fights microbial contamination and resists liquids, which makes it critical given that healthcare providers rely on sterilization to protect equipment and patients.

Plastic is hip: One of the most common surgeries in the United States and Europe—hip replacements—used metal-on-metal sockets for years. Today, new hip socket designs are made with carbon fiber-reinforced polyetheretherketone (PEEK) plastic that has demonstrated superior strength, wear resistance and compatibility with other parts to mimic the joint and function of the human hip.

The 99.99% solution: Approximately five to 10% of hospital patients contract hospital-related infections in the United States, potentially extending their hospital stay and increasing the cost of care. Plastics are being made with antimicrobial

additives that repel or even kill bacteria: Current generation antimicrobial plastics can reduce bacteria by up to 99.99%. They are used in everything from catheters to hospital room doorknobs.

Healthcare waste can—and should—be recycled: About 85% of hospital waste is noninfectious, according to the World Health Organization, and a bulk of that is recyclable. Yet, most of these materials have traditionally been landfilled or burned, and some haulers are reluctant to take some medical materials. While waste-reduction efforts need to be balanced with patient and provider safety, there are real efforts to improve landfill diversion of plastic medical devices. For instance, in 2017, Cleveland Clinic facilities reported recycling 33% of their waste. The Cleveland Clinic recycled 194 tons of plastic.

Source : Plastics Today

AMERICAN BEVERAGE ASSOCIATION LAUNCHES ‘EVERY BOTTLE BACK’ CAMPAIGN

Someone from the plastics industry once commented to me that “you can’t recycle it if you can’t get your hands on it.” The American Beverage Association (ABA; Washington, DC) announced that America’s leading beverage companies—the Coca-Cola Co., Keurig Dr Pepper and PepsiCo—have initiated a “breakthrough” effort to increase recycling rates and reduce the use of virgin resin by increasing collection of the industry’s valuable plastic bottles to make into new bottles.

The goal is stated in the name of the initiative—Every Bottle Back—that will support the circular plastics economy

by reinforcing to consumers the value of their 100% recyclable plastic bottles and caps and ensuring they don’t end up as waste in oceans, rivers or landfills, said the announcement.

This program is being executed in conjunction with two of the country’s most prominent environmental nonprofits and the leading investment firm focused on development of the circular economy. The World Wildlife Fund (WWF) will provide strategic scientific advice to help measure the industry’s progress in reducing its plastic footprint and The Recycling Partnership and Closed Loop Partners will assist in deploying funds for the initiative.

“Our industry recognizes the serious need to reduce new plastic in our environment, and we want to do our part to lead with innovative solutions,” said Katherine Lugar, ABA President and CEO. “Our bottles are designed to be remade, and that is why this program is so important. We are excited to partner with the leading environmental and recycling organizations to build a circular system for the production, use, recovery and remaking of our bottles. Every Bottle Back will ensure that our plastic bottles are recovered after use and remade into new bottles, so we can reduce the amount of new plastic used to bring our beverages to market. This is an important step for our industry, and it builds on our ongoing commitment to protecting the environment for generations to come.”

The Every Bottle Back initiative includes measuring industry progress in reducing the use of new plastic in the United States through collaboration with ReSource: Plastic, WWF’s corporate activation hub to help companies turn their ambitious plastic waste commitments into meaningful and measurable progress by rethinking the way plastic material is produced, used and recycled.

The initiative also will strive to improve the quality and availability of recycled plastic in key regions of the country by directing the equivalent of \$400 million to The Recycling Partnership and Closed Loop Partners through a new \$100 million industry fund that will be matched three-to-one by other grants and investors. The investments will be used to improve sorting, processing and collection in areas with the biggest recycling infrastructure gaps.

Keefe Harrison, CEO of The Recycling Partnership, commented: “The beverage industry cannot deliver on its promise of sustainable packaging without serious improvements to the current U.S. recycling system. Working in partnership with the beverage industry on its Every Bottle Back initiative will help to improve local recycling and provide Americans with stronger recycling programs for all materials, including plastic bottles.”

In an Oct. 25, 2019, interview with BBC News’ Business Editor Simon Jack (“In the war on plastic, is Coca-Cola friend or foe?”), Coca-Cola’s Global Chief Executive James Quincey definitively stated that he’s a friend, and that while the company has a long way to go in recovering and recycling its estimated 100 billion plastic bottles a year, Quincey conceded that the company “has no plans to reduce its own use of plastics.”

However, he added, “we aim to recover every bottle for every one we sell by 2030. And then use 50% of them back into our own bottles.” He stated that “50% of its new plastic bottles will come from recycled bottles.” Currently, Quincey told BBC News that the company has recovered 59% of its bottles, and uses 9% of its bottles back in new bottles.

Why can’t 100% of the bottles be recycled into new Coke bottles? Quincey responded to that question by noting that Coca-Cola

competes with many other industries for recycled plastic.

We in the industry know that one of the obstacles to meeting demand for recycled PET (rPET) is a lack of good, clean post-consumer PET bottles. Another problem remains the complexity of curbside recycling and getting people to recycle properly. Quincey is correct in stating that there is a lot of competition for rPET.

To help with those challenges, the Every Bottle Back initiative plans to launch a public awareness campaign to help consumers understand the value of 100% recyclable bottles through community outreach and partner engagement.

According to a poll conducted by Public Opinion Strategies on behalf of the ABA, nearly half of consumers surveyed were unaware that America’s leading beverage companies are already making bottles that are 100% recyclable, including the caps. The new initiative aims for the companies to work together to leverage their packaging to remind consumers that its bottles are 100% recyclable and can be remade into new bottles. Beverage companies will begin introducing voluntary messaging on packages beginning in late 2020.

Almost everyone I interview on this topic agrees with the fact that recycling of PET is absolutely the best way to handle one of the best materials being used in packaging today. They unanimously agree that recycling beats other solutions such as bioplastics, biodegradable plastics and compostable plastics.

As the ABA noted in its announcement, PET is a strong, lightweight and safe plastic approved by the U.S. Food and Drug Administration for use in food and beverage containers.

“At PepsiCo, we are striving to build a world where plastics need never become waste,” said Kirk Tanner, CEO, PepsiCo Beverages North America. “We are proud

to collaborate with others in the industry and respected partners to advance that vision and to do the hard work needed to educate consumers, enable collections and inspire action to recycle our plastic bottles. More recycled plastic lessens the need for new plastic.”

Source : Clare Goldsberry

‘TELANGANA DISTRICT GIVING 6 EGGS IN EXCHANGE OF 2 KG PLASTIC WASTE

Telangana has been in the news for a while for its fight against pollution. This time, the state’s Kamareddy District Collector, N Sathyanarayana launched a ‘Sensitise Incentivise’ campaign, promising to give half a dozen eggs to residents who hand over 2 kg plastic waste.

The drive to reduce plastic waste would be overseen by all grassroots level and municipal staff. Besides, a committee has been formed to ensure there’s no shortage of eggs that are to be rewarded to anyone who comes to them with 2 kg of plastic at their collection points. This committee will include district officials, members of non-profit organisations, and members of traders’ associations, reported The News Minute.

The campaign was kickstarted following Chief Minister K Chandrasekhar Rao’s announcement that Telangana would ban single-use plastic completely, over health and environmental concerns.

According to Sathyanarayana, since the commencement of the clean-up drive, nearly 15,000 kilos of single-use plastic has been collected by the three municipalities over the past three months. He said he wants the initiative to eventually become a peoples’ movement.

“The government is keen on preventing the use of single-use plastic. So, we thought why not do something innovative and healthy. That’s how the plan to dole out three eggs for every kilo of plastic collected, was born,” he added.

The government officials have tied-up with several kirana shops to set up plastic collection points, where participants would be given eggs in exchange for plastic. “For now, donors are providing the eggs. If we require more, we will arrange through Collector’s funds. We plan to give prizes on Republic Day to the villages which perform well in the drive,” Sathyanarayana said.

In the past, a similar initiative was started by the Mulugu District Collector C Narayan Reddy. Under this, citizens were encouraged to pick up single-use plastics and exchange them for one kilo of rice.

Source : Plastics Today

RELIANCE TARGETS SUSTAINABILITY IN INDIA

Reliance Industries Ltd. is working with the Indian Center for Plastics in the Environment (ICPE) to advance sustainability in India.

“We need to reach out to 1.3 billion consumers who each generate some amount of waste,” Reliance Senior Vice President S.K. Ray said in an interview at K 2019 in Düsseldorf. “The question is how to responsibly manage that waste.”

“There are a lot of disposable markets, and we need to reduce that material impact as much as possible,” he added. “Less material means less energy used.”

Mumbai-based Reliance — a conglomerate with businesses ranging from oil refining to polypropylene to retail stores — already recycles 2 billion PET bottles per year in India and uses the material to make other

products. But Ray said there’s more work to be done.

“The problem is visible pollution, and we have volunteers working on beaches to address that,” he said. “We want to get as close to the consumer as possible.”

Ray also said that it’s important to make younger consumers aware of sustainability. Reliance recently sponsored a sustainability contest along with ICPE for students. The contest drew 3,000 entries. The winning entry was a video made by a 16-year-old student.

“If public awareness is greater, we can show that recycled plastic has value,” Ray said.

ICPE was founded in 1999 and has 24 member companies, including Reliance, BASF, Haldia Petrochemical, Indian Oil and LG. Its goal is to promote and support plastics waste management in India.

Reliance also is a member of the Alliance to End Plastic Waste, an industry group formed earlier this year with the goal of investing \$1.5 billion to help end plastic waste in the environment.

Reliance ranks as India’s largest private sector company, with annual sales of just over \$90 billion. The firm employs almost 200,000.

Source : Plastics News

SLOW SPEED AHEAD FOR SCRAP GRANULATION

Rapid Granulator has unveiled what it describes as the biggest innovation in slow speed granulation in years. The variable speed Rapid One CUT PRO contributes to less dust, less noise, less energy consumption and significant operational benefits according to its manufacturer.

Amid growing demand for efficient and reliable recycling solutions, the One CUT PRO allows injection moulded plastic

processors to adjust the rpm range when granulating at a slow speed from the standard 25 rpm to a bandwidth of 15–35 rpm (plus/minus 40 percent rotor speed), for optimal quality regrind.

With the vast majority of processors running at under capacity when it comes to regrinding, the new machine, which uses the new Rapid Flexi SPEED system, allows operation at lower speed when required. For processors facing capacity limitations, on the other hand, operating at a higher speed level will allow them to overcome capacity constraints, boosting operational output. The torque level of the machine is maintained, regardless of the speed at which it is running.

Further benefits of the new machine include the operator-friendly “Open Hearted” design through the patent pending QRR (quick rotor release) system and the use of an innovative energy saving technology.

While knife granulators are conventionally used for granulating softer materials and run at a speed of 200-250 rpm, processors of brittle materials such as glass-fiber reinforced plastics primarily rely on slow speed granulators. These processors have, until now, been limited to running their granulators at 25 rpm, regardless of the specific material that they are processing.

“Rapid is the leader in granulation and we wanted to know why the standard 25 rpm for slow speed granulators had never been questioned. This is why we started tests to optimize the speed according to specific plastic material characteristics. This has resulted in One CUT PRO, the best of three worlds – less noise, less dust and less energy consumption,” says Bengt Rimark, Rapid’s CEO based in Bredaryd, Sweden.

Running the new machine at a lower speed of 15 rpm helps to improve the quality of ground highly brittle materials through minimizing dust generation. But there are noise reduction advantages too, as noise

levels correlate closely with cutting speed. By reducing rotation speeds from 25 rpm to 15 rpm, noise levels can be reduced in many applications by 3-5 dBA. This means about a 50 percent reduction in actual noise pressure on the ears of factory workers.

A further advantage for low speed operation is the energy saving boost. "There is an almost 100% correlation between speed and energy consumption. If we reduce the speed by 40 percent, we have also reduced the energy consumption by up to 30 percent. That is a significant saving," says Rimark. For operators wishing to run the machine at a higher speed, moving from 25 rpm to 35 rpm, will allow them to increase the capacity with 30-40 percent in the granulator.

Besides the flexibility and improved granular quality, One CUT PRO brings great operational benefits too. "One of the biggest disadvantages of slow speed granulators when compared to knife granulators is the gearbox design, which makes the rotor very difficult to turn by hand. What we have done for this machine is introduce the QRR (Quick Rotor Release), which allows the operator to easily disconnect the whole gearbox from the rotor so they can easily clean the machine for the next feed," notes Rimark. "When the gearbox is disconnected the whole cutter house can be opened up, providing the Rapid's unique Open Hearted design, that drastically simplifies cleaning, service and preventive maintenance," he adds.

A further advantage of One CUT PRO is the implementation of Energy Smart, a new system that can lead to an about 80% reduction in energy consumption. This function allows the operator to stop the machine from running when accumulating materials, rather than having it run continuously. With Rapid

Stop & GO mode, the granulator will stop and go in intervals, so there is zero energy consumption and no noise during pause mode. When Energy SMART is implemented together with running the machine at a rotor speed of 15 rpm the maximized energy saving is reached.

At the recent K Show, Rapid also presented its complete line of Thermo PRO machines, a new range of granulators specifically designed for in-line processing of skeletal waste from sheet and film thermoforming lines. "This machine needs to be flexible to handle different thermoforming speeds and thicknesses. It also must not have and moving parts exposed to operators on the plant floor," says Rimark.

The Thermo PRO is equipped with a new heavy duty roller feed system that also can handle the start-up cups up to 200 mm height in the web, eliminating any extra labour costs and material waste. Themo PRO with integrated loop control is made in super soundproof execution in order to operate at noise levels below 80dBA, a level at which the use of ear plugs is not required. Rapid Granulator currently offers 15 different base configuration machines, depending on customer requirements.

Rimark believes that as a supplier operating in the circular economy field, Rapid Granulator has never been in a stronger position due to intensifying focus on plastic pollution. "We are very fortunate to be in a business that is part of the solution to reducing the environmental impact of plastics. Customers are desperate to get recycled materials in their product as that is what their consumers are demanding too. But we are not only helping customers recycle their materials, we are also making them more profitable when doing it," he concludes.

Source : Stephen Moore

IS THERE A CURE FOR 'PLASTIPHOBIA'?

Every day, we in the plastics industry are being made aware of one major fact: Our industry is changing. This week I received an e-mail and a good editorial from Roberto Chiarotti of BCM Public Relations Ltd. in London. He attended Circularity for Polymers: The ICIS Recycling Conference in Berlin the week of Nov. 3, and notes in his editorial that the "general consensus among some of Europe's leading plastics industry commentators—the very people working to re-shape the industry" is we must address the problem of "plastiphobia." That's something with which Plastics Today columnist and extrusion expert Allan Griff would definitely agree. He writes and speaks a lot about "plastiphobia" and how the industry should respond. Griff would very much agree with Chiarotti that "plastiphobia shouldn't be a thing. Plastic should not be demonized." Rather, he notes, it should be treated as the miracle of modern living that it actually is.

"The problem is not with plastic per se, rather recycling of plastic . . . and the regulators are cracking down hard on an industry that already faces a number of complex challenges," writes Chiarotti.

"The plastics industry has become acutely self-aware, and some might even say introspective. Directive targets must be met; new processes researched, developed and launched; consumer education delivered; and consumer expectations met. Looming over all of this is the spectre of sustainability, and the demonization of plastics," comments Chiarotti.

In his editorial, Chiarotti reports that Paul Hodges, Chairman of International E-Chem, said there's an awful lot of work to do in a very limited time. "It's very clear there's a paradigm shift going on in the industry. Companies are waking up to

the fact that waste plastics are a really big issue—one that’s not going to go away. Single-use plastics are going to be on the firing line for the next few years—and business models simply must change,” he emphasized.

Hodges added that at the core of the shift required is the fact that people don’t know how to recycle plastics, but they do understand why we need to, recounts Chiarotti. “We haven’t got the technology available,” said Hodges. “We haven’t got the collection processes set up. We need to move away from throwing rubbish away at waste sites and focus instead on developing resource centres based on a distributed network of local chemical recycling plants,” said Hodges. These are more efficient and effective at separating out the different types of plastic to help better achieve the dream of a circular economy, according to Chiarotti, who adds that it is certainly on the horizon, but remains a nascent industry.

To my way of thinking, the plastics industry created this whole recycling mess with its creation of the “chasing arrows” and the seven most common types of plastics. What good has it done the industry or consumers to have seven numbers for seven different types of plastics, if only the first two are of any real value in the recycling stream? That means the other five are going to landfills or incinerators.

Consumers can’t sort out seven different types of plastics, obviously, so the industry decided curbside collection of all (co-mingled) plastic was the best option. Get it to recycling facilities and let them sort it out. That, however, is also a problem. Manual sorting is costly and extremely inefficient. Valuable plastic materials are made less so by contamination, which makes most of the PET and HDPE unrecyclable for use in new products.

New technologies that can take co-

mingled plastics and chemically recycle them are starting to offer solutions. Richard Daley, Managing Director of ReNew ELP, spoke at the conference, and said that his company “is in the final stages of development on the first of four chemical recycling processing lines, with each line processing 20,000 tonnes a year, writes Chiarotti. “Its Cat-HTR technology utilises what Daley described as a unique hydrothermal upgrading process, using supercritical water to break down plastics into reusable, valuable chemicals and oils.” The target feedstock for processing via the Cat-HTR technology is the “residual plastic after mechanical recycling has taken place, such as flexible, multi-layer films,” said Chiarotti. “ReNew ELP sees itself as complementary to the mechanical recycling process.”

ICIS Senior Editor, Recycling, Mark Victory, pointed out the issues surrounding chemical recycling technology at the conference. “Chemical recovery is better, in theory, but there are issues with cost and yield. There are still the same challenges of collection, and it will be five to 10 years—an optimistic estimate—before we see large scale chemical recovery,” Chiarotti reports.

Victory identified another hurdle, according to Chiarotti, in that collection is simply not big enough. He said local authorities, where most responsibility for household waste collection lies, have been underfunded since the global economic downturn more than a decade ago, and investment in infrastructure has not kept pace with the growing complexity of packaging as a result. And that domestic issue is further exacerbated by China’s decision to stop taking waste plastics from the rest of the world.”

I would say that the curbside collection method is too big and creating problems that cities—especially smaller cities—

can’t deal with, such as the soaring cost, resulting in little to no return on investment. Many have drastically reduced or completely eliminated curbside collection programs. That has brought on the ire of citizens who want to be “green” but who, ultimately, don’t understand proper recycling and how that inhibits recycling rates.

Chiarotti quoted Victory: “Investment in waste collection hasn’t kept pace with the increasing complexity of packaging and since China stopped accepting waste, there’s more contamination in our domestic recycling. Wastage rates have increased, because China used to take the lower quality waste material, which it could use in industries such as textiles, but is now being incorporated into domestic bales. The scale of demand and size of the undersupply is also [resulting in] material having to be produced at maximum capacity and stretched further, which also has an impact on contamination levels. In recycled polyethylene terephthalate (PET), for example, we’ve seen wastage rates increase from 25% in 2009 to 30 to 35% currently.”

However, time is of the essence to figure this out. “What the industry urgently needs is project teams to work out how to produce more sustainable products and better recycling collection and processing facilities,” said Hodges, according to Chiarotti. “We’ve got 18 months to work this out,” he warned, “because if we don’t do it, brand owners are going to say, ‘Look, we’ve made a commitment to consumers to have done this by 2025. You’re not moving. So, we’re going to have to do something else.’ We have six years to work this out—and we don’t know what to do.” Chiarotti said that Hodges feels the brand owners, which have committed to the 2025 deadline, need reassurance from the plastics industry. “We need to reach out

to brand owners and say we have got the technology sorted out, the business model sorted out and the finances sorted out, so trust us, we will now deliver so you can deliver what you need to do,” Hodges said. ICIS’ Senior Analyst of Plastics Recycling Helen McGeough explained: “Plastic packaging is more complex than ever before, modern packaging has moved beyond just functionality to a marketing tool. We need to strip it back to a simpler level and encourage recycling concepts at the design stage.

“The EU has set the bar high with the Single-Use Plastics Directive, requiring higher collection rates, even with 2018 recovery rates for PET bottles in Europe at 63%, and 55% in the UK. PET collection rates vary across member states, reflecting the differences in systems, consumer participation and government ability to prioritize investment in waste management,” said McGeough. “This lack of standardization in everything from waste infrastructure to final rPET product specification continues to present as many challenges as opportunities for one of the most developed recycling markets in the plastic industry,” she added.

Victory stated that the “sector needs heavy investment to catch up across the entire chain. There’s no point in everyone wanting to recycle if the infrastructure isn’t there. We are relying on people to understand and embrace recycling systems, which is hard to predict. There’s a strong education element to it. For most people, plastic is simply plastic—they are unaware of the different types and what to do with them.” Chiarotti notes that Hodges concurred on the need for investment, and emphatically suggested the industry needs to provide funding. “The amount the industry is committing to this sea change is next to nothing—25 million here, 10 million there—come on guys, you know, we’re

talking about a hundred billion [euro] industry here. You can’t start with pocket money!”

Hodges sees the biggest industry challenge, and perhaps opportunity, as the shift from massive mechanical recycling plants to smaller, local chemical recycling units. “The new industry business model is small scale and local, whereas for the last 30 to 40 years, all we’ve talked about is massive and global. This is a complete game changer,” Chiarotti reports.

I would add that while small and local sounds good, recycling facilities need large-scale operations to be profitable. Many of the PET facilities in the United States are operating at 60% capacity, according to some reports. Simplification of the whole recycling scheme is needed if we are to obtain that scale and to efficiently capture the value of recycling old products into new ones.

It’s evident that the European plastics industry struggles with the same issues we do in the United States. Curing “plastiphobia” requires more than just a paradigm shift within the plastics industry. It will take extensive consumer education about plastics—what can and can’t be recycled and why—as well as simplification of the recycling process to encourage greater participation.

Source : Clare Goldsberry

100% SUSTAINABLE FLEXIBLE PACKAGING PRODUCTION PLANT OPENS IN INDIA

The world’s third largest producer of flexible packaging, Constantia Flexibles (Vienna, Austria), opens the world’s first plant designed to produce more sustainable and recyclable flexible packaging only, in India. Production focus at the plant lies

on the more environmentally friendly packaging family EcoLam. The official opening will take place on November 20 in Ahmedabad.

The reduction of waste in general and plastic waste in particular is an important issue as much in India as anywhere in the world, and particularly for the country’s food processing and home and personal care industries. The Indian government has responded proactively to the problem, including adopting “Plastic Waste Management Rules” as early as in 2016. Among other things, the rules prescribe to scrap single-use plastic like pouches completely by the year 2022. Another part of the new regulations is the phasing out of multilayered plastic, which is largely nonrecyclable. These “Rules” show that Indian government can exert pressure on the recycling economy and that it supports initiatives and companies which advocate for less waste.

That’s why Constantia Flexibles made a move to offer a solution at the source, in manufacturing.

“We know about our responsibilities towards the industry, the end consumers and—first and foremost—towards the environment,” says Alexander Baumgartner, CEO of Constantia Flexibles. “Thus, we are not only focusing on developing more environmentally friendly packaging, we also designed the first plant in the world dedicated to produce sustainable packaging only. The Constantia Ecoflex Ahmedabad plant is located in Gujarat in India, which is the perfect market to implement such a forward-looking project.”

After a construction time of more than two years, Constantia Ecoflex Ahmedabad started test runs in September 2019. The plant has an area of 24,500 sqm/263,716 sq ft, and currently has 50 people working at the plant, a number that’s expected to triple by the second quarter of 2020.

The solutions produced at the new plant all belong to the innovative product family

EcoLam, which is part of Constantia Flexibles' innovative product line Ecolutions. EcoLam is a lightweight mono-polyethylene laminate suitable for a wide variety of packaging applications. Due to its mono-material structure it is fully recyclable and offers a carbon footprint that's approximately 32% lower than that of comparable products.

The EcoLam family comes in different barrier grades (EcoLam, EcoLamPlus, EcoLamHighPlus) to deliver the barrier needs for a diverse range of products.

Source : Plastics Today

NEW COMPOUNDS FROM LANXESS FOR LASER TRANSMISSION WELDING

Laser transmission welding is a method employed for joining plastic parts. It enables even very small components with complex geometries to be produced in a cost-efficient and resource-friendly manner, making it part of the growing trend toward the miniaturization of electrical and electronic functions. This is why Lanxess has developed a wide range of laser-weldable polyamides and polybutylene terephthalates (PBT) Durethan LT and Pocan LT (Laser Transparency) and has recently expanded its range to include three new compounds. At K 2019, the High Performance Materials business unit showcased these compounds. "In addition to good, process-safe laser-weldability, the three new materials possess a range of other important properties that allow them to be used in a broader range of applications," says Dr. Claudia Dähling, an expert in technical plastics at Lanxess. "Potential applications include components for electrified vehicle drives and driver assistance systems as well as devices for digitalizing the world in which we live: the Internet of Things."

Pocan B3233XHRLT (currently Pocan TP155-002) is a new, 30-percent-glass-

fiber-reinforced PBT compound that exhibits good laser transparency and excellent resistance in a hot and humid environment. Materials like these are almost unprecedented on the market because standard additives for hydrolysis stabilization generally cause the laser transparency of PBT to deteriorate significantly. The outstanding hydrolysis resistance of the trial product from the latest Pocan HR generation has been demonstrated in the SAE/USCAR-2 Rev. 6 long-term tests of the American Society of Automotive Engineers (SAE). "This test on the finished part is recognized worldwide as the ultimate test of hydrolysis resistance. In a series of highly stringent, in-house tests conducted on test specimens, our product achieves USCAR test results of between Class 4 and 5 – the two highest classes," says Dähling.

Most flame retardants also diminish the laser transparency of thermoplastics, which is why PBT, polyamide 6 and polyamide 66 compounds with good laser-weldability and high flame-retardant properties are rarely seen on the market. They are, however, needed for components in battery systems for electric vehicles. Dähling: "With Durethan BKV30FN04LT, we can offer a corresponding compound based on polyamide 6. With its halogen-free, flame-retardant package, it passes the UL 94 flammability test of the US Underwriters Laboratories Inc. testing organization for small test specimen thicknesses with the top classification of V-0."

The material can be safely processed within a stable process window and leaves hardly any deposits in the tool. Its high tracking resistance of 600 V (CTI A, Comparative Tracking Index, IEC 60112) makes it ideal in components for high-voltage batteries and plugs.

The third new Lanxess material for laser welding is Pocan TP150-002. The 30-percent-glass-fiber-reinforced PBT compound is optimized for extremely high laser transparency. It exhibits a transmission of 13 percent, which is around double the transparency of most

other laser-transparent PBT product types (measured with an LPKF TMG-3 at 980 nm and a test specimen thickness of 2 mm). "We have tailor-made the material for the cost-efficient laser welding of components requiring a greater wall thickness for design reasons," says Dähling.

Source : Stephen Moore

TRANSFORMATIONAL TECHNOLOGIES THAT CAN CHANGE THE WORLD

Lux Research (Boston) released on November 7 its Annual List of Transformational Technologies that are projected to have the greatest impact over the next 10 years.

Lux's "20 for 2020" report identifies and ranks 20 technologies that will reshape the world, based on innovation interest scores from the Lux Intelligence Engine, along with input from Lux's leading analysts.

While they are factored in, the report goes beyond megatrends, market demand and new innovations that can thrust many technologies into the spotlight by also providing a shortlist that is intended to provide "data-backed context for the ever-shifting technology landscape and insights into how companies can maximize the investment opportunities these data trends reveal."

I mean, Lux really goes deep, poring through patents, papers, funding and more.

In short, it lists the emerging technologies that the firm is most bullish on near term and over the next decade. I thought it would be of interest to readers to pull out the ones of particular interest to the plastics community from this fascinating list—and we barely have to go into the list to find the first.

But we'll begin with what Lux's identifies as the top two broad transformational market drivers:

1. **5G Networks:** From robotic surgery to self-driving cars, 5G will be critical to advances in the internet of things. 5G has officially left the realm of research and entered reality, with more than

- 2,200 patents being filed this year.
2. **Shared Mobility:** With more than \$10 billion in funding every year for the past three years, shared mobility—like car-sharing services—are reinventing urban transportation. This was a new entry to the leaderboard as is the next. And at #3, it's...

That brings us to #3, which is the first in the list to point directly to plastics via a top-of-mind topic that's of interest throughout the plastics community and beyond because it's a subset, and perhaps a large one, of a circular value chain.

3. **Advanced Plastic Recycling:** Innovations that can convert plastic waste into a variety of valuable products, enabling a circular economy and avoiding pollution.

Mission-critical for companies from consumer-packaged goods companies to chemicals, China has invested in recycling technology in a big way, with 55% of all patents coming from that country.

The report expands on the topic in the summary, noting...

Why it's important: Regulations like single-use plastic bans and waste reduction commitments from brands are shaking up the plastics value chain. Plastic waste recycling is becoming mission-critical for companies from CPGs to chemicals.

What you should do: Companies need to develop waste collection and sorting and help scale up conversion technologies like pyrolysis and chemical recycling. Look for those collecting and converting to present new competition for oil, chemicals, and materials companies in the new circular value chain.

You can also find plastics "hidden" among the remaining technologies where plastics are used or are applicable; for example, that now includes Blockchain, which landed at #15 (see Blockchain technology applied to plastics traceability and sustainability, published October 2019), and 2D materials, which appears at #18. Wikipedia defines two-dimensional materials, which are sometimes referred to as single-layer materials, as "crystalline materials consisting of a single layer of

atoms. These materials have found use in applications such as photovoltaics, semiconductors, electrodes and water purification."

Lastly, I was curious why some technologies that appear smoking hot from this editor's chair were omitted, for example Robotics/Collaborative Robotics. It seems that growing market and any others fell off the list only because it had either "went mainstream" (which was the case here), changed form (as with wearable technology) or simply fell in relative terms versus hotter tech (for example, AR/VR).

Source : Rick Lingle

NEW TEAR-OFF SOLUTION FOR CARDBOARD-PLASTIC PACKAGING

Cardboard-plastic combinations have already made a strong impression for a number of years, delivering a positive environmental impact thanks to their recyclability and extremely eco-friendly properties.

To make it even easier for consumers to separate the cardboard and plastic, Greiner Packaging teamed up with cardboard packaging and labelling firm Offsetdruckerei Schwarzach to develop a new tear-off system, which makes recycling even more intuitive.

K3® packaging consists of just two parts: an unprinted, white or transparent plastic cup, along with a cardboard wrap – which, if necessary, can also be made of recycled material.

The new, patent-pending tear-off system makes separating and recycling these two components clean and intuitive. "Cardboard-plastic combinations are extremely environmentally friendly compared to other packaging solutions. But it's important that the two components are actually separated and properly disposed of, too," stresses Jens Krause, Sales Director Switzerland at Greiner Packaging. "With that in mind, we've put a

lot of effort into developing a new tear-off system in recent months that makes their separation even more intuitive and, most importantly, is impossible to miss."

When the cardboard and plastic are separated, the packaging is 100 percent recyclable, making it a perfect example of a circular economy product.

One package, many advantages

While the life cycle assessment of a product was the ultimate measure in years past, ready recyclability is now viewed as the most important criterion. Sustainability, on the other hand, involves making sensible use of resources (including waste as a raw material) in addition to achieving minimal environmental impact. A product's recyclability and its environmental impact must both be considered throughout its life cycle. And by that measure, cardboard-plastic combinations excel. As a result, Greiner Packaging is focusing on K3® packaging, which offers a variety of benefits:

- A K3® cup with a diameter of 95 millimetres and a capacity of 500 millilitres achieves a 17 percent reduction in CO2 emissions compared with a conventional direct-printed, thermoformed cup of the same size..
- Viewed over its entire lifespan, K3® is undoubtedly the most environmentally friendly packaging material. When the cardboard and plastic are separated, the packaging is 100 percent recyclable. At the same time, a K3® cup uses up to 33 percent less plastic compared with a direct-printed, thermoformed cup of the same size.
- When separated, the individual components of K3® packaging are 100 percent recyclable, too. These components are properly identified at waste sorting facilities and assigned to the appropriate material stream. An unprinted, white or transparent plastic cup is the basic ingredient for a successful circular economy.

Source : Popular Plastics & Packaging

EVENTS

Plastics & Rubber Vietnam

27th - 29th November, 2019
International Center for Exhibition (ICE), Hanoi, Vietnam

Plastec West

11th - 13th February, 2020
Anaheim Convention Center, Anaheim, CA

12th Die & Mould India International Exhibition

22nd - 25th April, 2020
Bombay Exhibition Centre, Mumbai, India

ArabPlast

9th - 12th January, 2021
Dubai World Trade Centre, UAE

Plast Eurasia Istanbul

4th - 7th December, 2019
Tüyap Fair Convention and Congress Center, Istanbul

IPF Bangladesh

12th - 15th February, 2020
Int'l Convention City Bashundhara (ICCB), Dhaka, Bangladesh

7th Plastasia 2020

19th - 22nd June, 2020
BIEC, Bengaluru, India

PLASTINDIA

4th - 8th February, 2021
Pragati Maidan, New Delhi, India

11th PLASTIVISION INDIA 2020

16th - 20th January, 2020
Bombay Exhibition Centre, Mumbai, India

Plast Alger

9th - 11th March, 2020
International Conference Center of Algiers Abdelatif Rahal CIC, Algeria, Africa

Indoplas

2nd - 5th September, 2020
Jakarta International Expo (JI Expo), Kemayoran, Jakarta, Indonesia

NPE 2021

17th - 21st May, 2021
Orlando, Florida, USA

Interplastica

28th - 31st January, 2020
Moscow, Russia

CHINAPLAS 2020

21st - 24th April, 2020
National Exhibition and Convention Center, Hongqiao, Shanghai, China

27th Fakuma

13th - 17th October, 2020
Messe Friedrichshafen, Germany

T-PLAS 2021

22nd - 25th September, 2021
BITEC - Bangkok International Trade & Exhibition Centre, Bangkok, Thailand

**WEST BENGAL POLLUTION CONTROL BOARD**

Paribesh Bhawan, 10A, Block-LA, Sector-III,
Bidhan Nagar, Kolkata 700 106

No. 466/3S-355/2019

Dt. 06.12.2019

Notice for Manufacturers/Producers/Importers/Brand Owners to prepare action plan under Plastic Waste Management Rules, 2016 and its amendment thereafter

As per Plastic Waste Management Rules 2016 and amendment thereafter, the primary responsibility of recollection of used multilayers plastic, sachet or pouches or any kind of plastic packaging material is of Manufacturers, Producers, Importers and Brand Owners (PIBOs) who introduce the product in the market and it is mandatory for them to establish a system for collecting back the plastic waste generated due to their products and to prepare an action plan for recollection of plastic waste.

In pursuance of the orders of Hon'ble Nation Green Tribunal, all the Manufacturers, Producers, Importers and Brand Owners (PIBOs) within the State of West Bengal are directed to apply for registration (who have not applied so far) and to prepare detail action plan for recollection of plastic waste under Extended Producer Responsibility and submit to the State Pollution Control Board within 15.01.2020.

All those PIBOs who fail to comply with this order shall be liable for action under the extant environmental laws which may include prosecution and/or imposition of adequate Environmental Compensation.

Sd/- Memembr Secretary
West Bengal Pollution Control Board

ICA – T8862(3)/2019



GODDESS OF ECONOMICS: MONEY HAS VALUE ONLY WHEN IT'S CIRCULATED

Dr. Devdutt Pattanaik

Buddhism is a religion where you are told that desire is the cause of suffering, where we hear of Buddha giving up his kingdom to become the great awakened one. Yet, at the stupa where he is remembered, we find some of the earliest images of the goddess of wealth, Lakshmi, Sri. Merchants and monks who venerated Buddha believed that desire is the cause of suffering; but they also respected Lakshmi, because they were pragmatic enough to know that without Lakshmi, life cannot function. Even Jains say that when Lakshmi appears in the dreams of women, they are destined to give birth to saints, heroes and kings.

The word 'Lakshmi' itself comes from the word 'laksh' which means target. Inanimate objects don't have targets, but all living creatures have a target. All living creatures look for food to survive. So, their target is food. Food, their laksh, becomes their Lakshmi. For plants, Lakshmi is sunlight, water, nutrients. For herbivorous animals, Lakshmi is grass and leaves. For carnivorous animals, it is the flesh of other animals. So, basically, Lakshmi is that which sustains nature.

For humans, Lakshmi is not just food, it is also property. It is the clothes we wear, the house we live in, the products we consume. So, the more Lakshmi we have, the more comfortable our life becomes. That is the concept of Lakshmi. The ancient Vedic seers understood it long ago, which means the oldest song praising Lakshmi is called the Sri Sukta, which is found in the Rigveda. It is where you pray for Lakshmi to come into your life in the form of cows, horses, grain, gold and all kinds of services. We find Lakshmi being considered a goddess, not just of affluence and abundance, but also auspiciousness, in Buddhist and

Jain literature.

They say that Lakshmi is born from the ocean of milk – just as we get butter out of milk, in the same way, you get Lakshmi, from the ocean of milk, by churning. This sounds poetical but what it actually means is that, in order to get Lakshmi, we have to work. The ocean of milk is the market, she is present in the market, but to obtain her from the market, we have to churn the market.

Lakshmi is called 'chanchala'. Chanchala means 'one who is whimsical', you don't know in which direction she shall move. Nobody can predict the movement of Lakshmi, just as we cannot predict the movement of the stock market, the monsoon, if the next year's harvest will be good, if a company will be profitable next year, if we will get a promotion or a bonus next year. Lakshmi's movements are unpredictable. Therefore, she is called Chanchalla. She moves in every direction.



The value of money comes only when you use money. So, if you have ten rupees in the pocket, it has no value, unless you give it to somebody for goods and services, so keeping money locked away does not work. This whole idea of Lakshmi being chanchal, or whimsical, and continuously moving, is a reminder that money has value only when it is circulated. Its value comes either when Lakshmi comes into your house, or you give her away, in exchange for goods and services, or you provide goods and services in exchange.

Since Lakshmi is whimsical, she does not come through hard work, each time. Some people, like Karna, have to work hard to get Lakshmi. Others, like Duryodhana, get Lakshmi because they are lucky to be born in rich families.



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MEMBERS ARE REQUESTED TO SEND THEIR GRIEVANCES/PROBLEMS FACED ON GST/SUBSIDY/VARIOUS LICENCES AND ANY OTHER ISSUES TO THEIR RESPECTIVE INDUSTRY IN DETAILS ALONGWITH SUPPORTING DOCUMENTS TO THE IPF SECRETARIAT SO THAT WE CAN PUT THE SAME TO THE CONCERNED AUTHORITIES.

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