# EMERGING THOUGHTS

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# Contents

# Foreword

We, at SURESH & CO. are extremely glad to release the series "EMERGING THOUGHTS". This publication is a consolidation of events occurring all around the world and ideas put together by articled assistants (Interns undergoing Chartered Accountancy course) who will be emerging as Chartered Accountants in near the future and employees.

Keeping yourself updated with the history, news and events, happened or happening, around the world is very important. Knowing the latest news and updates and events which are occurring throughout the global world, is necessary, as these occurrences may affect our lives, either directly or indirectly.

The response we receive from the readers is always overwhelming and this eternal ritual has been an amazing journey reaching milestones as the learning opportunities have always illuminated our path with the essence of knowledge.

At SURESH & CO., every individual is empowered to be bold in the name of innovation and wisdom and our encouraged to think beyond their capabilities. This not only helps them to purify their thoughts, enriches their vision but also gives them an opportunity to reconnaissance various things that are beyond their study domain.

We at SURESH & CO., wanted to share these gems of initial thoughts as conceived by these young minds. It is to be noted that these updates may or may not have been reviewed by any senior or a technical expert and thus these should be used only to kindle thoughts in certain positive direction. Readers are advised to do further research and analysis on the topics which they find interesting.

**"Dreams without goals are just dreams."**

**"Do small things with great love, trust the wait, embrace the uncertainty and enjoy the beauty of becoming. When nothing is certain, anything is possible."**

# Update for the day #1771 | Odisha Millet Mission (OMM)

Supply creates its own demand. This theory, believed to have been proposed by the early 19th-century French economist Jean-Baptiste Say, may sound like a foolhardy view to the modern ear, but this is how India lost the diversity of its food basket to the Green Revolution.

In the 1960s, as the country was struggling to feed itself, the focus was to rapidly increase the production of two crops - wheat and rice. This shaped an Indian diet where rice and wheat became the staple food, eventually reducing the demand for other traditional cereal grains like millets.

Assessments in recent decades show that while the Green Revolution has not helped address the nutritional security of India, it has turned the country into the world's biggest extractor of groundwater. Heavy reliance on chemical inputs has degraded soil, polluted water sources, and is harming farmers' health.

Fifty years later, as Odisha tries to improve nutritional security and promote sustainable agricultural practices, Say's law has come in handy. In 2017, the state launched the Odisha Millet Mission (OMM), which aims to bring millets back to its fields and food plates by encouraging farmers to grow the crops that traditionally formed a substantial part of the diet and crop system in tribal areas. This highly varied group of small-seeded cereal crops not only require less water, and farm inputs and are more resilient to climate vulnerability, but are rich in nutrients like calcium, iron, and protein.

The Green Revolution has largely focused on the production and consumption of wheat and paddy. However, in terms of nutritional value, millets will prove to be more beneficial and highest amount of the respective nutrient among the given food crops

| Food crops ▶ ◀ Nutrients | Finger Millet | Little Millet | Sorghum | Pearl Millet | Foxtail millet | Kodo Millet | Barnyard millet | Paddy | Wheat |
|---|---|---|---|---|---|---|---|---|---|
| **Calcium (g)** | **344** | 17 | 25 | 42 | 31 | 35 | 22 | 33 | 30 |
| **Phosphorous (g)** | 283 | 220 | 222 | 240 | 290 | 188 | 280 | 160 | **306** |
| **Iron (mg)** | 3.9 | 9.3 | 5.4 | 11 | 2.8 | 1.7 | **18.6** | 1.8 | 3.5 |
| **Thaimin (mg)** | 0.41 | 0.3 | 0.38 | 0.42 | **0.59** | 0.15 | 0.33 | 0.41 | 0.36 |
| **Niacine (mg)** | 1.1 | 3.2 | 4.3 | 2.8 | 3.2 | 2 | 4.2 | 4.3 | **5.1** |
| **Protein (g)** | 7.3 | 7.7 | 10.4 | 11.8 | **12.3** | 8.3 | 6.2 | 6.8 | 11.8 |
| **Carbohydrates (g)** | 72 | 67 | 70.7 | 67 | 60.2 | 65.9 | 65.5 | **78.2** | 71.2 |
| **Fat (g)** | 1.3 | 4.7 | 3.1 | **4.8** | 4.3 | 1.4 | **4.8** | 0.5 | 1.5 |
| **Fibre (g)** | 3.6 | 7.6 | 2 | 2.3 | 6.7 | 5.2 | **13.6** | 1 | 2 |
| **Energy (kcal)** | 336 | 329 | 329 | **363** | 351 | 353 | 300 | 362 | 358 |

*Note: Approximate value of major nutrients per 100 g of the edible portion Source: National Institute of Nutrition, Telangana, and scientific studies*

Shoots of growth

In the first 5 years of implementation, Odisha Millet Mission has increased the production and consumption of millets to some extent. However, to scale up, it must recognize its shortcomings

| MEASURES TO BOOST PRODUCTION | MEASURES TO BOOST CONSUMPTION |
|---|---|
| Incentives of Rs 9,500 per hectare over a three-year period | Campaigns, training and food festivals to promote millets |
| Capacity-building through training on millet production, application of biological inputs and sowing techniques | Setting up of mobile vans or trucks, cafés, kiosks and outlets to sell millet-based foods |
| Procurement of ragi at higher minimum support price than that of paddy | Creation of "Millet Shakti" brand to sell products like cookies, savoury snacks, vermicelli and processed millets |
| Facilitation of market linkages by farmer-producer organisations | Under the public distribution system, one ration card holder gets 1-2 kg of ragi, depending on the procurement. Ragi *laddu* mix is provided by *anganwadi* centres in two districts |

Umi Daniel, director of migration and education at development non-profit Action Education (previously known as Aide et Action)-South Asia, who is based in Bhubaneswar, says, "Millets have been grown and consumed by indigenous people for a long time. The decline of the crops was not just due to the Green Revolution, but also because non-tribal people did not accept them."

"The government is once again aggressively marketing millets in tribal areas, which may stereotype them as tribal or poor people's food and drive young tribal people away," he adds.

| IMPACTS | SHORTCOMINGS |
|---|---|
| 19 of 30 districts covered, comprising 142 blocks, 1,722 gram panchayats, 16,989 villages, and 129,222 farmers | Nine districts have less than 5 per cent of farmers' coverage. Only 1.54 per cent of total net sown area covered |
| Value of produce per hectare in households increased from Rs 9,477 per ha to R20,701; income from R3,957 to R12,486 | Focus has largely been on production and procurement of ragi rather than all kinds of millets |
| Increased income for women's self help groups involved in processing and sale of millet products | Numbers of sales outlets are still low. Scale of Millet Shakti and public distribution is extremely limited |
| Share of farmer households consuming millets in the winter has increased to 98.5 per cent, in the rainy season to 72.6 per cent and in summer to 89.9 per cent. | Only 500 kg of millets are procured at assured prices. Farmers resort to the open market to sell produce they do not or cannot consume at low prices of R10-12 per kg |

**By Rithick Kumar**

# Update for the day #1772 | Go First joins India's airline graveyard?

One year ago, Go First was prepping for an IPO. This week, it declared bankruptcy. Just like that, it has its foot in the graveyard of now-defunct carriers—Air Deccan, Air Sahara, Kingfisher Airlines, Air Pegasus, Jet Airways…. it's a list that only seems to be growing by the day. In 2005, when the Wadia Group (the folks behind companies such as Britannia and Bombay Dyeing) decided to try their hand at the airline business, they must have known that the odds were stacked against them. After all, everyone knows the famous words from Richard Branson, the founder of the Virgin Group—"If you want to be a millionaire, start with a billion dollars and launch an airline."


But the Wadias believed they could make it work. And for a while, the airline did alright. Sure, if you asked someone what's their favourite airline, you probably wouldn't ever have got Go First as a response. But it did its job. It had a market share of 10%. It took people from Point A to B quite reliably. It expanded to service some international routes. After adjusting for fleet size, its income in FY20 was in line with indigo income in FY20 was in line with IndiGo after adjusting for fleet size. It kept its operating and maintenance costs at reasonable levels too. There weren't flashing lights signalling imminent doom.

Until Monday when people noticed that Go First routes weren't showing while booking tickets. And then the company shocked everyone by announcing that it was declaring bankruptcy. So where did it all go wrong for Go First? Well, the official statement blames engine troubles.

You see, the airline business is actually dependent on multiple external parties. If you want to set up an airline, you won't build out your own fleet. You'll buy or lease the aircraft from two entities—Airbus or Boeing. And then you need to get engines from other suppliers like Rolls Royce and Pratt & Whitney (P&W). You put these two 'outsourced' bits together and you're ready. What you're in charge of is simply running the show. Make sure you're flying profitable routes, check costs, and get great pilots and staff who show up every day.

Unfortunately for Go First, their P&W engines began to fail. And Go First had to stop flying those aircraft fitted with these problematic engines. In December 2018, around 10% of Go First's fleet had to be grounded. This rose to 30% by December 2021. And at last count, 50% of its 54 aircraft were unflyable.

Needless to say, business sputtered to a stop. The company's loss doubled from ₹870 crores in FY21 to over ₹1,800 crores in FY22. And while the industry has been going through a purple patch, Go First was preparing its own grave. Now the sad bit of all this is that it wasn't entirely Go First's fault. It didn't embark on unbridled expansion fuelled by debt. It wasn't as if it couldn't keep a check on costs. It was primarily an external issue.

But, could Go First have missed a trick or two? Could the airline and its management have seen this coming earlier? Well, look at its rival IndiGo which suffered from the P&W engine failures too. It had to ground its fleet in 2016. But IndiGo didn't sit idle. When it realized the scale of the problem, it quickly switched its engine supplier. And in 2019, it signed a $20 billion deal with CFM International for the engines in IndiGo's new aircraft. It didn't want to take a chance. Oh, and IndiGo also managed to get P&W to pony up. It wrangled compensation for all its losses due to P&W's faulty engines.

Now we don't know what was in their respective contracts. But all we know is that Go First had to fight. It had to fight for compensation. It had to drag P&W to an emergency court. Just to try and get some spare engines as a replacement. And even though P&W was ordered to provide 10 such engines by April 2023, it apparently never came through.

Though P&W did issue a statement on Tuesday saying it was in the process of sending the spare engines. So, what's next for the beleaguered airline then?

Well, theoretically, the company has declared bankruptcy to buy itself some time. It knows it can't pay off the debts because half its fleet isn't flying anymore. It doesn't have enough money to keep running. It needs help. And by help, we mean a massive infusion of cash. If not, it'll have to sell off whatever assets it owns. And pay back its creditors.

Creditors like banks that have an exposure of ₹6,500 crores. Now Indian banks aren't going to collapse if that's what you're worried about. Central Bank of India has lent it ₹1,500 crores and Bank of Baroda is in the mix for around ₹1,400 crores. That's about it. They can take a hit and move on. Oh, and the government might have to take a bit of a hit too.

See, during the pandemic, the government introduced a scheme called the Emergency Credit Line Guarantee Scheme. The purpose was to get banks to lend money to companies without fear. And if the company in question defaulted on the loan, the government would take the hit. Not the bank. And apparently, Go First also borrowed ₹1,300 crores under this scheme under this scheme as well. These borrowers will be hoping for some clarity within the stipulated 270-day period.

In the meanwhile, Go First will be hoping the lawsuit against P&W in Singapore will go its way. That ₹8,000 crores will find its way into the airline's coffers. That it can repay its debt. The other option that folks say is that the Wadia Group can turn to what it already has. Their group companies like Britannia have quite a bit of cash to spare. It has given Go First loans in the past too. Not to forget that the group also owns massive swathes of property in Mumbai. This can fetch a pretty penny. But will they want to keep throwing good money after bad? Quite unlikely. Especially considering that there were rumours just last month that the promoters were trying to exit the airline. Sell their stake and walk away. If not, Go First will simply have to wait for someone to buy it out. Someone who (naively?) believes that India's population along with rising disposable income and the record high daily flyers is a potent cocktail. Someone who thinks they can beat the odds and create a profitable airline.

But even that doesn't guarantee that Go First will fly again. Just look at the mess that Jet Airways is still in despite a new buyer in the mix. So yeah, whatever happens, it's a pretty sad state of affairs. The collapse will affect its 5,000 odd staff. It disrupts the schedules of roughly 40,000 passengers who flew its domestic routes daily. And with less competition, it could force airfares higher

**By Yashaswini R U**

# Update for the Day #1773 | Ajay Banga Selected 14th President of the World Bank

The World Bank on Wednesday confirmed that Indian-American Ajay Banga will be its next president. Banga will be taking charge at a pivotal time for the development lender as it looks to better address climate change.

"The Board looks forward to working with Mr. Banga on the World Bank Group Evolution process," the bank wrote in a statement published shortly after the board voted to approve his leadership for a five-year term. He will take over the role from David Malpass on June 2.

US President Joe Biden had earlier nominated the business executive to lead the World Bank. As a practice, the president of the World Bank is typically nominated by the American President, while the head of the International Monetary Fund is customarily a European.

Banga, 63, is currently serving as vice chairman at equity firm General Atlantic. He was previously chief executive officer at Mastercard.

Here are 10 key things to know about Ajay Banga:

Ajay Banga was born in Pune, India.

He completed his bachelor's degree in economics from St. Stephen's College, Delhi, and later went on to earn an MBA from the Indian Institute of Management, Ahmedabad.

After completing his education, Banga started his career with Nestle India and then worked with Citibank in India and Malaysia.

In 1996, he moved to the United States and joined PepsiCo, where he worked for 13 years in various roles, including the CEO of the company's operations in India and Southeast Asia.

In 2009, Banga joined Mastercard as its President and Chief Operating Officer and became its CEO the following year.

Under his leadership, Mastercard has expanded its presence globally and has also focused on developing new payment technologies and solutions.

Banga is a member of various business and non-profit organizations, including the Business Roundtable, the International Cricket Council, and the US-India CEO Forum.

He has been a vocal advocate for promoting financial inclusion and has worked with various governments and organizations to expand access to financial services for underserved populations.

Banga has received several awards and honours for his contributions to business and society.

Banga was awarded Padma Shri by the Indian government in 2016.

The Board looks forward to working with Mr. Banga on the World Bank Group Evolution process, as discussed at the April 2023 Spring Meetings, and on all the World Bank Group's ambitions and efforts aimed at tackling the toughest development challenges facing developing countries.

The President of the World Bank Group is also the Chair of the Board of the Executive Directors of the International Bank for Reconstruction and Development (IBRD). The President is also ex officio chair of the Board of Directors of the International Development Association (IDA), International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA), and of the Administrative Council of the International Centre for Settlement of Investment Disputes (ICSID).

**By Hiral Songara**

# Update for the day # 1774 | Whales! A climate solution no one is talking about

A single great whale is worth $2 million. No, we're not talking about how much whalers net by killing whales for their oil, blubber, and bone. What we're saying is that we could extract $2 million worth of value if we save these whales!

Because here's the thing they don't teach us in school—Whales can absorb and store carbon dioxide. And well, school definitely taught us that CO2 isn't the friendliest of gases for our planet. It warms the atmosphere and leads to a gradual rise in global temperature. So, while we're busy talking about renewable energy and planting more trees, we ignore one crucial element in this picture—the role of whales and other wildlife in combating climate change.

You see, whale poop is rich in nutrients like iron, phosphorus and nitrogen. And these are exactly the kind of nutrients that phytoplankton such as ocean algae need to spur growth. Now guess who produces more than half of the world's oxygen? Phytoplankton, of course! And they're not just great at producing all this O2, they're also quite brilliant at absorbing CO2. Yup, it's equivalent to having 4 Amazon rainforests for this very reason.

So, if you draw out the equation, it tells you that if we have more whales, we'll have more phytoplankton, and ergo, we can remove more carbon dioxide from the atmosphere. It's called the 'whale pump'.

It's not just that. These massive whales also store carbon dioxide in their bodies. As much as 1000 trees can hold. And when they die, they sink and take all this carbon to the bottom of the ocean floor where they remain for many, many years.

Now that you have all these facts, imagine the harm we caused over the decades. Not just to the whale population by mercilessly hunting them down but also to global warming. In fact, scientists found that before we embarked on industrial whaling, the population of whales might have sunk so much carbon into the ocean each year, that it would be like taking nearly 410,000 cars off the road. Instead, we killed them and released all that carbon into the atmosphere.

And now we've reduced the whale population by 65-90% in the past couple of centuries and we're just left with 1.5 million whales. It's a sorry state of affairs.

But what can we do to turn things around and get a buy-in from everyone to protect these majestic creatures?

Well, introduce an element of capitalism, of course! And conjure up financial investments at the intersection of whales and carbon capture.

This isn't some whimsical idea we thought of. Something of this sort is already happening. Last year, a group of organizations banded together and took matters into their own hands. They kick-started something called the '

Whale Carbon Plus Project'. It would bring finance and AI (artificial intelligence)—two things which everyone loves today—together to work their magic to save whales.

So how will this work, you ask?

For starters, the project would use AI to track the whales' movements. And then issue a bond against it. A company could buy that bond and instead of an interest on the investment, they'd get a carbon credit. Maybe to the tune of how much carbon the whale helps us save. They can then use that carbon credit to offset their own emissions. Or even sell it to someone else who needs it to show they're trying to at least solve their carbon footprint. All this money can then be put towards conserving whales.

Sounds quite brilliant, doesn't it?

But here's the thing. It's still in its teething stages and there could be some problems.

For one, as Anjana Ahuja pointed out in the Financial Times, it means we're basically handing over whale ownership to a company. It doesn't seem like quite a nice thing to do. And second, quantifying the impact of a financial system like this could be a tricky affair. Putting the exact carbon savings per whale for issuing the requisite credits will be hard and then having a third-party vet and audit these numbers will be harder still.

And not to forget those big carbon-emitting companies could simply see this as a way to publicly make a statement. To tell people they're concerned. In the meanwhile, they'll continue to do as little as possible to actually reduce their emissions.

But hey, the idea is still new. We've tried similar sort of green bonds in the past, so maybe we'll find a way to have whale bonds too. And if we throw numbers like $2 million per whale out there, perhaps it could entice everyone.

We'll save our whales. We'll save our oceans. We'll save ourselves from climate change.

**By Suman S**

# Update for the day #1775 | India Becomes Europe's Largest Supplier of Refined Fuels

A recent report by analytics firm Kepler showed India has become Europe's largest supplier of refined fuels this month while simultaneously buying record amounts of Russian crude. The reliance of Europe on Indian crude oil products has surged. This increase can be linked with the ban on Russian oil.

The data also showed that Europe's refined fuel imports from India are set to surge above 360,000 barrels a day, edging just ahead of those of Saudi Arabia

The development is a double-edged sword for the European Union. On the one hand, the EU needs alternative sources of diesel now that it has cut off direct flows from Russia, which was previously its top supplier. However, it ultimately boosts demand for Moscow's barrels and means extra freight costs

It also means more competition for Europe's oil refiners which can't access cheap Russian crude, and it comes amid wider market scrutiny about where the region's diesel imports are coming from. Russian crude oil arrivals to India are expected to surpass 2 million barrels a day in April, representing almost 44 percent of the nation's overall oil imports, reported ANI, citing the Kepler data.

Russia emerged as a major supplier to India for the first time in 2022-23 (FY23) after it started giving oil at discounted rates amid the Ukraine war. Despite concerns raised by the West to India's imports from Russia during the war. India has taken a strong stand and said that it looks at all options to achieve energy security.

Russia was the largest exporter of crude oil to India by value in February in spite of the Western price cap of USD 60 per barrel, according to the data from the Union Ministry of Commerce and Industry. Crude imports from Russia in February stood at USD 3.35 billion, followed by Saudi Arabia at USD 2.30 billion and Iraq at USD 2.03 billion. The price cap kept by the Western countries was designed to limit Russian oil revenues while keeping the oil itself flowing to avoid a global price shock.

**By Punith B**

# Update for the day # 1776 | Hard truths about India's population

We're now the most populous country in the world! We have overtaken China and we have 1.429 billion people. Or at least, that's what the UN says.

We have a super young population with a median age of 28.4 years and that means we have a very large population that's of working age. In fact, by 2030, 69% of the total population is expected to fall into this category. And in absolute terms, it will total 1.04 billion people.

Because with more people in the workforce, we can have increased economic growth and higher savings and investments. And we've seen this play out in other countries in the past. For instance, Japan in the 1960s, Korea in the 1980s, and China in the 1990s…all of them capitalized on the young population and supercharged their growth. On the other, countries in Latin America didn't quite reap the benefits of their young population. Their growth rate remained anaemic. And this boils down primarily to two things—education and employment.

Well, according to a study by talent assessment firm Wheebox, 50% of all graduates are unemployable. One reason why this could be happening is that we have a bunch of private colleges in India that do the bare minimum to keep their racket going.

AICTE Chairman Anil Sahasrabudhe said the root problem is the large number of private and deemed universities which are not under the purview of AICTE. "The qualifying criteria were probably relaxed to increase the gross enrolment ratio, cater to increased demand, but no one followed up to check if the institutes were eventually following rules," he said. Unlike engineering institutes whose intake is monitored by the apex body, there is no limit on private universities and deemed universities offering BTech courses.

Also, a report by the Confederation of Indian Industry (CII) revealed something quite shocking. A puny 3% of our workforce consists of formally skilled workers. This number is 24% in China. The International Labour Organization (ILO) says that the unemployment rate for those with either a bachelor's degree or higher is a staggering 15% in India. Maybe part of this is due to the unemployability of worthless degrees. The Pew Survey says that the middle-income Chinese population that lives on $10–50 a day total nearly 800 million. On the other hand, in India, this accounts for only 121 million people. The unfortunate reality is that in the past decade, women have actually dropped out of the job market. The proportion of working women has fallen from 26% to 19%. And while women contribute to 40% of China's GDP, it's just 17% in India's case.

We're now the fifth-largest economy in the world and we've left behind our colonial masters. We took over the presidency of the G20 this year. We're attracting foreign manufacturers such as Apple to set up shop in India to push manufacturing. We're focusing on infrastructure building as a means to create more jobs. We've become a power in our own right.

But in order to truly capitalize on the opportunity that this demographic dividend is offering us, we may have to do a lot more. Because before you know it, the fertility rate drops, people get older and the ratio skews in the opposite direction. We'll find ourselves in the same position as Japan from the 1990s or China of today. We need to prepare ourselves for that. And we have the next 30 years to do so.

**By S H L Vasavi**

# Update for the day #1777 | World's first Organic state and "Oscar for best policies" Awardee

Let's talk about the World's first Organic state and "Oscar for best policies" Awardee.

Fully Organic State in India: Sikkim

Sikkim has just become the world's first organic state! Other states, such as Tripura and Uttarakhand, are following suit, establishing similar goals and achieving them. Sikkim also is the first organic state in India.

When the COVID pandemic struck India, access to high-quality food was as important to the country as health. India accepted the challenge and rose to the occasion. It's a win-win-win situation for farmers, customers, and the environment. All of this led to India's first fully organic state: Sikkim.

Benefits of a Fully Organic State in India

Furthermore, India can become a crucial player in global organic markets, according to the Agri-export Policy 2018. Flax seeds, sesame, soybean, tea, medicinal plants, rice, and pulses are among India's major organic exports, contributing to an almost 50% growth in organic exports in 2018-19, reaching Rs 5,151 crore, according to government estimates.

"Small-scale exports from Assam, Mizoram, Manipur, and Nagaland to the United Kingdom, the United States, Swaziland, and Italy have demonstrated the potential by increasing quantities and extending to new destinations as demand for health foods grows," the official statement noted.

The ministry believes that the presence of aggregators is necessary to bring about economies of scale for small and marginal farmers to benefit them with better bargains and no intermediaries. "The establishment of more clusters in the proximity of larger towns, where the need for organics will be much greater, is being promoted, as is the concept of market-led 'One district - One product.'"

How Did Sikkim become an Organic State?

The most inspirational story comes from India's smallest and youngest state. Sikkim was once considered one of India's poorest states, with 35% living in poverty. Still, it ranks among the top income-generating states with a low percentage of poverty. Philippe, one of our colleagues, explains how they could pull it off.

Sikkim has become a leader in sustainable development over the last two decades. It is also the first and only state in India to attain 100% sanitation coverage and be devoid of open defecation. They are virtually fully literate, and they are the only state to increase their forest cover, which now covers about half of the state's area. Sikkim became India's first and only state to proclaim itself organically in 2016.

It was not simple for Sikkim to shift to a 100 per cent organic state. The farms are modest and numerous, located on the Himalayas' terraced and steep slopes. The state government provided a robust policy framework and training in agroecological farming to the state's 66,000 farmers. In the first few years, many crops failed, causing agriculture production to plummet. Synthetic fertilizers were abruptly removed from the soil, and it took several years for the earth to reclaim its natural fertility.

**By Divya NY**

# Update for the day #1778 | Small tweak, million

# years ago, changed human brain forever

The tweak in the DNA further led to cascading changes across the genome that changed human features forever, especially the brain.

The human brain was different in the beginning but then a tweak in the DNA a million years ago separated us from other mammals. The tweak in the DNA is visible in the Chimpanzees even today, and a new study has revealed what happened.

Researchers from the University of California San Francisco revealed that about a million years ago large chunks of the human genome were rearranged. It was a chance event during sperm formation that led to the deletion, duplication, and even reversal of sections of DNA.

The new findings published in the journal Science state that while researchers were able to identify the change in the human genome, they are yet to understand what caused it. The tweak in the DNA further led to cascading changes across the genome that changed human features forever, especially the brain. Researchers analysed how stretches of DNA called Human Accelerated Regions (HARs) differ between humans and chimpanzees. While it is nearly identical among all humans but differs between humans and all other mammals, most of these genomic sequences are enhancers and control and regulate brain development.

"What we found is that many HARs are in regions of DNA where structural variants caused the genome to fold differently in humans compared to other primates. This gave us an idea how HARs could have arisen in the first place," Katie Pollard, lead author of the study said.

Pollard had discovered, about two decades ago, the regions of DNA known as HARs that were initially stable but then changed a million years ago. While her lab has now been able to confirm that it was tweaks in the HAR that shaped our brain, the team is yet to understand the role they play in making humans distinct from other primates.

"The way the genome folds up in three-dimensional space like origami is particularly important for enhancers. That's because enhancers can impact the activity of any gene that ends up close by, which can vary depending on how DNA is folded," explains Pollard, who is also a professor at UC San Francisco.

The team used machine learning, a form of Artificial Intelligence, to predict DNA folding patterns and then applied it to human and chimpanzee DNA sequences. This helped them identify the regions of the genome that folded differently in humans and the AI predicted that nearly 30 percent of HARs were in areas of the genome that folded differently in humans compared to chimpanzees.

The team also said that if DNA near HARs folded differently in humans and brought different genes in proximity to HARs, this could have had drastic consequences for our ancestors.

**By Bhuvana S Bharadwaj**

# Update for the day #1779 | What the RBI thinks about climate change

Every year, the Reserve Bank of India publishes a report on the state of currency and finance in India. It's usually a very comprehensive overview of things such as how we can recover from the pandemic or how we're handling inflation.

But this year, the RBI decided to surprise everyone with their theme—'Towards a Greener Cleaner India'.

The Story

Glaciers are melting at a record pace in the European Alps. Pakistan witnessed record-breaking rains that affected 33 million people. This February was the hottest on record in India since 1901.

The RBI report starts with an alarmist note! But we all know about the devastating effects of climate change.

But what can a central bank do to deal with all this?

To be honest, not much. Because most countries turn to fiscal measures to deal with climate change. Or put another way, decision-making is in the hands of the governments–local and central. It's the government that can decide to impose some sort of carbon tax. Or they can give subsidies to companies engaging in renewable energy. Maybe even introduce ways in which companies can trade emission credits amongst themselves.

The central banks have no role to play in all of this. They're just spectators. They can't tweak interest rates or fiddle with monetary policy to fight climate change.

So why on earth are central banks worried about this phenomenon then?

You see, central banks have long had one mission—maintain price stability. Ensure that inflation doesn't run rampant. And they've realized that climate change can hurt this objective. Extreme weather events can affect agricultural output. It can destroy productivity. It can tamper with people's expectations of inflation. They might save more money and cut back on consumption. And all of this could lead to big variations in commodity prices.

It's not just that.

Let's assume that investors believe that India might be affected by climate change. They'll think twice about investing in the country. They might even sell their assets. And when money leaves the country, it can affect the value of the Rupee and as a consequence affect our livelihoods.

So yeah, you can see why climate change is entering the central banking lexicon.

And what's the RBI doing about this, you ask?

Well, not much at the moment. If you look at the report, only 20 pages actually talk about monetary policy and climate change.

There's one part where they talk about trying to reduce dependence on cash.

However, there is a section dedicated to cash and the emissions from printing, storing, and transporting physical currency. While it's not quite quantified, we know it's a lot. So, the paper discusses the prospects of introducing a Central Bank Digital Currency (CBDC). It's digital. There's no printing. It's easy to manage. In fact, they think that digital currencies could be more energy efficient than credit and debit cards. So, it might well be the most ecological mode of payment.

Beyond this, they've also discussed how central banks could fiddle with policies that alter capital allocation.

For instance, RBI mandates commercial banks in India to push credit to what RBI calls 'priority' sectors. This typically includes agriculture, small businesses, education, housing etc. But a few years ago, the RBI decided to add the renewable energy sector within this ambit too. They wanted the sector to get the money it deserved.

And the paper thinks that maybe the RBI can create a new scheme that makes money available to banks at a low cost. Banks can then pass on this benefit to companies in the renewable energy space.

But that's not all, they could take things a bit further and actually rewards banks that lend more to climate-friendly companies.

How can it do that, you ask?

See, there's one cardinal rule in the banking industry. Banks are expected to set aside reserves in the event of emergencies. And central banks decide the kind of reserves banks are expected to maintain.

Now the central bank of Lebanon decided to tweak this policy a bit to accord preferential treatment to some entities. If banks made loans to more environmentally friendly companies, they were allowed to get away with lower reserve requirements. So, they wouldn't have to set aside large sums of money. Instead, they could use this money to create more loans and make even more money. This is a direct incentive to aid green companies.

Maybe the RBI could do something like that too.

But not everyone agrees that central banks should be taking up such matters of preferential credit.

Whether people like it or not, central banks are expanding their powers. There is a 'mission creep' underway as banks such as the European Central Bank and the Bank of England explicitly make climate change a key part of their monetary policy.

And more banks are joining the Network for Greening the Financial System (NGFS)—a group that gets together to talk climate change. In 2017, the group had 8 members—all central banks. Today, there are more than hundred banks. There is a tacit admission that there's a link between climate change and financial instability and central banks are now trying to work together to see if they can do something about it.

**By Gunda Naga Abhigna**

# Update for the day #1780 | Eliminate the "Middleman Cut" on your next meal

In India, there is a duopoly on online meal delivery services between Zomato and Swiggy. Although these platforms quickly bring food from restaurants to your door, they are attacked for adding a "middleman cut" that raises the price.

This is what the Open Network for Digital Commerce, or ONDC, aims to change by eliminating the middlemen between the customer and the business. Currently, the service is available in a few places, including Bengaluru. It is said that ONDC benefits both; customers and businesses simultaneously, albeit at the expense of sharing your personal information.

## WHAT IS ONDC?


It is an open technology network built on an open protocol that will allow any network-enabled application to identify and engage with local commerce across categories like mobility, shopping, food order and delivery, hotel booking, and travel.

The platform makes it possible for buyers and sellers to communicate and transact business online regardless of the other applications customers use. Buyers and sellers are not needed to use the same platform or mobile app in order to execute a transaction. They can use a variety of programs and still carry on business.

According to the commerce ministry, the foundations of ONDC are to be open protocols for all facets of the entire chain of activities in the exchange of goods and services, much like HTTP for information exchange over the internet, SMPTE for the exchange of emails, and UPI for payments.

## WHAT ARE ITS BENEFITS?

With a variety of alternatives for being digitally visible, ONDC offers access to more customers, increased product and pricing discoverability, control over terms, lower operating expenses, and additional opportunities for value chain services like shipping and fulfilment.

## HOW TO PLACE AN ORDER?

One must go to the ONDC website's main page in order to place an order.

Once there, select the 'Shop on ONDC' link from the homepage.

Click 'Shop Now' after choosing the platform from which you want to place your order.

Pick the things you desire and place your order like you would on other platforms.

Pay the amount. All done!

Now you are all set to place your next order on ONDC.!!!

**By Soundarya S Kadambi**

# Update for the day #1781 | India's first retail REITs

An Insight on REITs

Everyone loves a little real estate in their portfolio. It could be a piece of land in an area where you think the prices will soon soar. Or it could be that swanky commercial property in a prime business district that could fetch a decent chunk of rental income. But there's a problem. Making these investments isn't easy. First, you need to get some lawyers and do your due diligence. Ensure that all the property papers are in order. Then, you need the big bucks to invest and enter the game. It might eat away all the capital you have and that's a big concentration risk.

Naturally, this means real estate bets aren't for everyone. But a few years ago, something emerged that could potentially fix this conundrum for investors—Real Estate Investment Trusts (REITs).

Think of these in the same way as a mutual fund. You have a professional fund manager who'll pool investors' money and invest in a bunch of real estate properties. It could be in properties like those big IT parks with offices of the biggest tech giants in the world. Or it could be in malls that house big fashion brands and restaurants. The manager takes a fee for handling all of this. As an investor, you get to own a diversified portfolio of prime real estate. Without the need to break the bank. And you don't even need to get involved in the daily operational headache of managing the property yourself. But you still get a share of the rent.

And in India, we have three REITs available on the stock exchange—Embassy Office Parks REIT, Mindspace Business Parks REIT, and Brookfield India Real Estate Trust. But they are all quite similar. They play on big companies taking up office space and paying rent. But if you are someone who saw the crowds at the malls and wanted a piece of the rent that all these brands paid, it just wasn't possible. Until now…

This week, India got its first retail REIT in the form of Nexus Select Trust REIT that's owned by the global private equity behemoth Blackstone. Now if you haven't heard of Nexus, just know that it is one of the biggest mall operators in the country. The Nexus Select Trust manages nearly 10 million square feet of retail space across 17 malls or what they call Urban Consumption Centers (UCCs) in 14 cities in the country. The next biggest is Phoenix Mills with 9 UCCs in 6 cities. So yeah, Nexus is the leader of retail in India. Period.

So, if you want a share of the rent that fashion giant Zara and PVR cinemas pay, you know what to do.

So how does one invest in this, you ask?

Well, all REITs first raise money from the public through an IPO. For instance, the ₹3,200 crore Nexus REIT IPO opened for purchase on the 9th of May and closed on the 11th. Investors could choose to pick up a minimum of 150 units within a set price band—₹95 to ₹100 per unit.

And just like an IPO, units are allotted and it soon begins to trade on the stock exchange. For Nexus REIT, D-day is the 19th of May. Once it's listed, anyone can buy or sell its shares at a click of a button. So how do you get a rental pay out?

Well, it's kind of like how a company pays out dividends. It's just that REITs mandatorily have to pay at least 90% of their cash flow back to investors. And this happens every 6 months. So, when you take a bet on a REIT, it's not really in the hope that the price will soar on the stock exchange. That's a nice bonus. The real hope is that the REIT manager has chosen a bunch of good properties that will yield a nice rental yield.

REITs primarily make 3 different types of pay-outs to investors. Firstly, there's the rental income that it gets from the properties that are part of its portfolio. Then, there could be a dividend it gets from a subsidiary (called a Special Purpose Vehicle or SPV) it has invested in. And also, it could give a loan to this SPV on which it gets periodic interest and repayment of the loan too.

Now if you've invested in a REIT, you're going to have to break down the exact source of the pay-out you've received to pay tax.

In most cases, you can consider the dividend pay-out to be tax-free in your hands. On the other hand, you'll have to add the interest and rental portions to your overall income. So, if you typically pay a 30% tax on your income to the government, that's what you'll pay on this bit of the REIT pay-out too.

Oh, and if you buy a REIT share on the stock exchange for ₹100 and sell it 3 years later at ₹110, you'll have to pay a 10% tax on those profits or gains above ₹1 lakh in the financial year. If you sell in a shorter time span, you'll pay a higher tax of 15%.

Now that we've got most of the generic stuff out of the way, let's turn our attention back to the Nexus REIT specifically. How do we even evaluate a REIT?

Well, there are a few things to keep in mind.

In the commercial property space, vacancy is the biggest issue. And there's a measure called the Weighted average Lease Expiry (WALE). It's basically a snapshot of how much time is left for the property to go vacant. The higher the better. And for Nexus REIT, it stands at 5.7 years. Now since we don't have a retail REIT to compare this to, we have to look at the commercial property REITs which all have a WALE that's closer to 7 years.

Then there's the Occupancy Rate which indicates whether the malls are doing a good enough job of attracting renters. In the case of Nexus REIT, the occupancy rate is at a very solid 96%. And they're also keeping their existing tenants happy. Because out of over 4 million square feet of leasable area that were added in the past four years, 75% of it was picked up by brands that were already associated with Nexus malls.

Also, the diversification of the portfolio ensures that the risk to cash flows is limited in case tenants look elsewhere. And for Nexus REIT, no single tenant contributed to more than 2.8% of its gross rentals. And its top ten tenants account for just 20% of it.

And finally, there's the Net Operating Income (NOI) which is nothing but the lease rentals after adjusting for the operating expenses. Now the lease rentals can be tied to a fixed annual escalation. And it's also linked to the sales of the stores. If stores sell more, Nexus can earn a higher rent. And this NOI is projected to grow organically by 17% in the next 3 years.

And at the end of it all, there's just one number that matters to investors—the yield! And for Nexus REIT, the approximate pre-tax yield at the time of the IPO is around 8.25%.

So yeah, while all these are great signs, as an investor, you do have to remember a couple of things. For starters, if the stock price rises after the IPO and you pick it up, you'll probably get a lower yield and that's something to watch out for.

You also have to remember that since REITs are listed on the stock exchange, they're prone to the mood swings of investors. In the past, we've seen that whenever the RBI raises interest rates, the share prices of these investments drop. That means when you're trying to sell the REIT, you could face losses. So don't go by the 'yield' alone.

And finally, you're betting on people going to malls and shopping. That online shopping isn't really killing the physical experience altogether. That's the only way your yield will hold good. If brands don't renew their leases or manage to negotiate for lower rents, then that's a bit of a problem.

**By V. Sai Saran**

# Update for the day #1782 | The Indian Shrimp Story

In 2003, an association of shrimp farmers from 8 southern states of the United States filed an anti-dumping petition against 6 countries including India.

Their allegation was simple. These countries exported shrimp to the US at dirt-cheap prices and did so fully knowing that they were selling shrimp at below-normal prices. They were dumping excess produce in the US and affecting the livelihood of American fishermen. India, China, Vietnam, and Ecuador—They were all alleged to have played a part.

And while these countries protested their innocence, the US Department of Commerce began its investigation, nonetheless. They notified the International Trade Commission (ITC) of their decision and the ITC agreed that there was sufficient evidence to back the allegations. They admitted that local industry may have been hit hard by the cheap imports flooding its borders and the investigation eventually culminated in a range of duties.

Meaning cheap shrimp from India wasn't exactly cheap anymore and it dealt a body blow to India's flourishing shrimp industry. Farmers in Kerala reduced their catch by nearly 45%. And the lack of demand had a veritable impact on prices. Shrimp prices crashed from ₹280 to ₹100 per kilo after ITC's decision. And farmers in Tamil Nadu and Andhra Pradesh were even selling their produce below cost price.

Also bear in mind this was happening at a time when Indian farmers were dealing with a spread of a virus that affected their output. The White Spot Syndrome decimated the cultured shrimp population within a matter of days and India soon lost its tag as one of the top shrimp exporters globally.

But how did it even get there in the first place?

You see, India began modern shrimp farming in the late 1980s at a time when demand for shrimp was on the rise. This demand mostly came in from the US and the government began framing policies to promote seafood exports. This also helped companies pool in capital to build hatcheries, farms and processing plants.

And shrimp farming suited us quite well. Our production costs were low. Labour—readily accessible and we also had huge land parcels. Rice farmers along the coasts of Kerala and Andhra Pradesh could rotationally engage in shrimp farming and it was only a given that shrimp farming would take off in a big way considering the massive coastline we boast.

The Indian government also doubled down on this optimism and offered subsidies so farmers could invest in processing facilities, equipment and local breeding programs.

But then in the 2000s, there was the virus and the US anti-dumping investigation and it threatened to throw India off its perch. Now this sounds pretty bad. But here's what we didn't tell you. Despite all this, India continues to remain the second largest shrimp exporter globally after Ecuador.

So, you have to ask—How did India manage to navigate this crisis?

Well, a stroke of luck and a little bit of government intervention.

A disease breakout in 2009 named the Early mortality syndrome (EMS) ruined Black Tiger Shrimp farms all over China, Thailand and Vietnam—who happened to be the largest producers at the time. In the same year, the Indian Government allowed for the cultivation of a "new" variety of shrimp called the Vannamei (Pacific White Shrimp). These new shrimps were more disease resistant than their black tiger counterparts and could be cultivated using less feed, significantly easing the burden on the Indian shrimp farmers. This move prompted a nationwide shift in shrimp cultivation as more farmers got in on the act. Soon shrimp exports started rising and today, they contribute nearly 67% of India's seafood exports as compared to just a tiny percentage in FY10 when the white leg prawn culturing had just begun. Unfortunately, the story doesn't end here either.

Even though we are still the second-largest exporter of shrimp in the world, things have been a bit topsy turvy these past few years. There's been a steady increase in shrimp feed (shrimp food) prices. There are supply chain troubles. And production costs have been going up. In fact, in Surat production costs have gone up by 35% while shrimp prices have gone down by about 25%.

This is problematic because India used to be the top exporter of shrimp globally until FY19. However, we've lost that tag since the pandemic reared its ugly head. Freight costs went up. We couldn't send out shipments to the big markets (like US and China) and countries like Ecuador pounced on this opportunity.

The upside is that many people believe the tide may turn soon enough.

For instance, CRISIL believes that the industry could start bouncing back after analysing 98 shrimp exporters that account for two-thirds of the industry's revenue. They anticipate an uptick in global shrimp demand and they think India can capitalize on it. However, if we really wanted to claim the top spot again, we should probably be doing a few things differently this time around.

For starters, if we want to capitalize on the renewed demand, we need to address the matter of underutilized land.

Take Gujarat for instance. Gujarat alone has 3.75 lakh hectares of land suitable for shrimp farming and yet only 2.5% of the land is used to cultivate shrimp. However, if we optimized the figure a little bit, Gujarat alone has the potential to produce more than 3.4 lakh tonnes of shrimp a year.

Then there's the issue of market diversification. If India wants to keep its top spot, it needs to tap into other markets outside of China and the US. It wasn't a good idea to depend on one country back in 2003 and it isn't a good idea in 2023 either. So hopefully we learn from our mistakes in the past and emerge as the top shrimp exporter globally soon.

**By Smitha.R**

# Update for the day #1783 | The Hollywood TV Strike

The Hollywood TV Strike

We're living in an era of 'Peak TV'—In 2021, we had 559 shows across channels (cable, streaming etc) compared to just 210 shows in 2009!

Everyone wants more content. And studios are throwing money at ambitious new productions. This means they need to hire more writers who can create original scripts and tell stories that'll keep people on the edge of their seats, right? On the face of it, it seems to be a great time to be a writer in Hollywood.

But no. Writers are angry. They say the studio bosses are making all the money—such as the CEO of Warner Bros Discovery who made $250 million last year. Meanwhile, most writers are barely making ends meet. They feel that they are undervalued despite the fact that it's their content which rakes in millions of dollars for studios.

So, the Writers Guild of America (WGA), a union of nearly 10,000 film and TV writers, decided to resort to the age-old tradition of going on strike till their demands are met. And just like that, some of your favourite shows could be in jeopardy—production of Stranger Things and Cobra Kai have been temporarily paused.

What's really going on here, you ask?

Well, it's almost always about money. Or what they call residuals in TV parlance.

See, back in the days of TV, once a show crossed 100 episodes, it would be open for syndication. This simply meant that multiple TV networks such as Comedy Central, TBS, or CBS could air it. It was the holy grail for a TV show because this meant that it was a huge success that everyone wanted to broadcast. And each time the show was re-aired or re-used; people who were part of the show would rake in money.

For instance, the cast of Friends make roughly $20 million a year from residuals. Even the writers get a share of the revenue pie. It's a nice chunk of passive income from a show that ended nearly 20 years ago.

But things have changed. Streaming has disrupted how residuals are paid. You see, shows don't get syndicated on TV channels because everyone has their own platforms with original content. And because the show is available at the click of a button forever, streaming services only pay a fixed residual fee. It doesn't matter how successful the show is too. The amount is set in stone.

That's not making the writers too happy.

Then there's the worry that writing is becoming more like gig work.

See, before the rise of streaming, most series would typically have a 22-episode season. Look at shows like Friends, How I Met Your Mother or The Big Bang Theory. Writers would be employed to work on that show for at least 10 months in a year. They'd maybe see how the audience was reacting to each episode and tweak the next one accordingly. It was a live adaptation.

But that's not the case anymore. And that's because platforms like Netflix run smaller seasons that usually span just 8–10 episodes that are published in one shot. So the period of employment has fallen to just about 20–24 weeks now. And writers make less money because of that.

There's something else that's happening too. And that's to do with career progression for writers. Studios these days keep things in silos. They hire just a small group of writers to work on a particular episode or two. They call it the mini-room. This then gets passed along to a more experienced showrunner—the ones who have creative control of a TV show.

The end result is that writers miss the experience of being on set, editing, and learning other nuances of what it takes to run a show. The progression from writer to showrunner is missing and it hurts the growth of one's career.

They want this practice to change.

And finally, there's also AI.

See, artificial intelligence is everywhere already. It's taking away jobs at a fast clip. And that includes the creative industry. Feed it a few lines of text and it can create stories, music, and even movie trailers for that matter. Everyone's feeling the heat.

And there might be some of you saying that AI simply can't beat human creativity. But we know that's simply not true. Ask it to write a sci-fi story in the style of PG Wodehouse and it'll give you exactly that. And that's the crux of the matter—AI needs something to feed on. And the AI fodder is all the past content created by humans over centuries. It then simply mimics all this to tell new stories.

So, if AI can generate amazing TV and movie scripts, it's simply because it's banking on the works of thousands of writers from the past. They say it's intellectual property theft. And the writers don't even get paid any sort of 'training fee' when someone's using their material for their own profits.

That's exactly what writers don't want. They want to protect all their content. And they're saying that past writing material shouldn't be used as training material for AI.

Now here's the thing, everyone knows that it's good writing which sells. It doesn't matter if it's a star-studded affair or is part of a marquee series. You can't save bad writing.

Remember the James Bond movie Quantum of Solace from 2008? Well, that was bang in the middle of a writers' strike. And if you don't remember the movie all that well, no one will blame you. Because guess what… Daniel Craig and the director had to step in to do the job at the end of the day.

And as Craig put it, "On 'Quantum,' we were f****d. We had the bare bones of a script and then there was a writers' strike and there was nothing we could do. We couldn't employ a writer to finish it. I say to myself, 'Never again,' but who knows? There was me trying to rewrite scenes—and a writer I am not.'"

The same thing happened with the second instalment of the Transformer's movie series. It simply didn't do well.

But the problem is that despite knowing all of this, it seems like each time the landscape changes, writers have no option but to band together and demand their rights.

For instance, the first strike way back in 1960 was to ensure that writers would get a share of profits when TVs picked up a movie to run on the tiny screen. Then in 1973, it was when Cable TV emerged. In the 1980s, writers went on strike to get a share of royalties on sales of home video cassettes. Then in 2008, it was about residuals from DVD sales and trying to ensure that they'd make money from the future of streaming too.

And all these times, going on strike was the only thing that apparently helped their cause. There was no other way out.

So yeah, that's why after 15 years, writers are back on the streets again. They want fair pay for giving us all some fabulous content to binge on.

**By Manoj Kumar YN**

# Update for the day #1784 | The ONDC Infatuation: Food Wars Edition

The Story

Everyone's sharing screenshots of their food orders these days. They're saying it's much cheaper to order food over ONDC than to use Swiggy or Zomato. Like getting veg steam momos from Wow! Momo at just ₹85 on ONDC versus spending an average of ₹170 on the reigning food delivery apps. And the prevailing sentiment is that it's game over for Zomato and Swiggy.

Is ONDC an app?

No. It's just a network that anyone can piggyback on.

Think of it just like UPI. For instance, if a company wants to start UPI payments on its app, it doesn't need to go to every bank in the country and individually tie up with them. It just needs to tap into the existing UPI network. And the banks and payment apps that are part of the network can easily connect with each other. And it works the same way with ONDC as well. There will be a third-party app in between (which we'll get to) that connects the restaurants (and other businesses) on one side and buyers like us on the other.

Is ONDC owned by the government?

Nope. It's actually a private company that has raised over ₹180 crores from multiple investors—such as the State Bank of India, HDFC Bank, Kotak Mahindra Bank, BSE Investments, and NSDL. But it's registered as a non-profit and the government has evangelized it quite a bit.

Alright, so how does this food-ordering business work without an ONDC app?

Okay, so there's something called a seller app. This is the entity that does the hard work of onboarding or aggregating all the restaurants in the area. Someone like Magicpin* or eSamudaay. With restaurants on board, these seller apps then join the ONDC network. Then there is a group called the buyer app. Think of folks like Paytm or Meesho. They're consumer-facing apps with millions of users already. When they join the ONDC network, they'll be able to shake hands with the seller apps Magicpin or eSamudaay on the other side. And all they have to do is create a new tab on their app called 'Food'. Suddenly, all those restaurants that were aggregated by Magicpin or eSamudaay will be visible on Paytm and Meesho too. So, a customer simply needs to fire up one of these buyer apps which they probably have on their phone already. And place their food order. As a final step, they have to choose how they want their food to be delivered. Some restaurants might build out their own delivery fleet. Or else, the customer can choose folks like Dunzo or Shadowfax that specialize in logistics. And then wait for the food to be delivered. The beauty of this is that a restaurant will be visible across all buyer apps without having to tie up with each one individually.

So, how does everyone in this value chain make money?

The restaurants pay a commission, of course. But it's much lower than what Zomato and Swiggy take. From the reports we've seen, the commission could be anywhere between 4–10%. And this is likely to be split among the seller app like Magicpin, the buyer app like Paytm, and ONDC. And the customer then pays a delivery charge to an entity like Dunzo on the other side. So, everyone makes a bit of money.

And why is everything cheaper on the ONDC network when compared to Zomato and Swiggy?

Discounts!

Just like how Zomato and Swiggy burnt venture capital money to attract users with discounts, ONDC is dipping into the pockets of its investors too. There's no free lunch! So, they've been doling out a ₹50 incentive to buyer apps such as Paytm. This gets passed on directly to the customer as a flat discount while ordering. And for companies like Shadowfax that are delivering the food from the restaurant to your doorstep, there's an incentive of ₹75 as well. A discount of ₹125 is quite significant if you think about it. But, ONDC can't really continue to burn cash, can they? Sure, they're a not-for-profit, but they do have investors who've pumped in crores of rupees. So, after seeing daily transactions jump from 1,000 to over 20,000 in just a few weeks, they've re-evaluated their discounting strategy and included some T&C.

As per Economic Times, that ₹50 discount on Paytm is capped at 2,000 orders per day. If you're placing order number 2,001 for the day, you'll be out of luck. Also, the ₹75 incentive on delivery will be capped as soon as a particular restaurant makes up ₹3,750 worth of deliveries for the day. Beyond that, you'll see a delivery fee pop up. So, the mega discount factor seems to be on the wane and prices could head higher.

The big question is—Will ONDC kill Zomato and Swiggy?

Well, the biggest draw for ONDC at the moment is the cheaper prices on offer. But we told you that the discounts are already being capped. And it didn't take too long for that to happen. ONDC is still a private company that needs money to at least cover its running costs. And the government can't say that food delivery is a 'public good' and subsidise it like UPI. So, the deep discounts that you see now will slowly vanish. The other thing is the experience of food delivery. While the sound of an open system to democratise food ordering sounds quite utopian, we've seen a few complaints about the ordering experience—wrong orders and delayed deliveries.

And since this experience is fragmented with multiple entities, there isn't a customer care person to tie it all in at the moment. That's where closed systems like Zomato and Swiggy could win because they control the end-to-end experience. Remember, just 5% of Zomato's users contribute to 33% of orders on the platform.

**By T Ganesh Pai**

# Update for the day #1785 | Will Google kill ChatGPT

In February, Google shares lost $100 billion in value in a single day. Its AI chatbot Bard had quite a disastrous launch. People spotted a gaffe in its answer. And everyone declared that Google had lost the plot.

But last week, the tables turned. At Google's 2-hour annual conference, the executives used the phrase AI over 140 times! They're weaving it into literally every product they own. And people loved it. Google's stock soared by 8%.

How did Google turn its AI fortunes around so quickly, you ask?

Well, there are a couple of things. But before we get into that, we need to see why Google was late to the party in the first place.

Now here's how search works. If you have a question, just type it into the box and it spits out a whole bunch of blue links. Google allowed advertisers to bid for keywords—say insurance. The ones who paid the most would feature at the top of the list. And since our attention spans are low and we don't want to scroll through multiple links and pages, we'd normally click on something from Page 1. Since Google was the search engine behemoth, it made a lot of money this way. In fact, this search ad revenue is over 60% of Google's topline. Even the iPhone is not that important to Apple. It makes up around 50% of the company's revenue.

Now imagine a scenario where you wouldn't have to click on another blue link in your life again to get an answer. Just type your query and you'd get a straight answer that explains everything.

Sounds amazing, right?

But for Google, this will be a doomsday scenario. It would kill their ad revenue. No one would click on anything anymore and the tech giant wouldn't be able to charge advertisers for clicks.

For instance, when we searched for 'Insurance', it took us straight to an Investopedia article. No ads, no clicks. It was Google's version of giving you the most appropriate and accurate result. And as far back as 15 years ago, even though only 1% of all searches went through this route, Google was losing over $100 million annually in ad revenue due to this one button.

You can imagine then that an AI-powered search engine would kill the golden goose!

But Google hasn't really been sleeping at the wheel. So, the change of fortune now isn't really surprising. In the past decade, it built a dominant AI team dabbling in all sorts of stuff. And Google's engineers even published a paper in 2021 talking about search engines becoming conversational. It's just that Google likely didn't act on it because it wanted to protect ad sales.

And it finally took Microsoft's big splash with Bing 2.0 for Google to panic. That's when it went on overdrive and set up an internal group called 'Magi' to bring AI to search.

But maybe Google needn't have panicked so much.

Because here's a stat for you. It seems like Bing hasn't been able to make any inroads. Apparently, its search market share on desktops has grown by a measly 0.25% in the past 3 months. People simply aren't switching.

Rather, it seems that people going directly to ChatGPT for their answers. So, if Bing's not the real threat, can Google kill ChatGPT itself?

Well, let's assume you are searching for the 'best electric toothbrush' right now.

At the moment, Google's search engine will throw out links and images. On the other hand, its chatbot Bard will provide you with a conversational answer extolling the virtues of various electric brushes. Much like ChatGPT. And so, in many ways, traditional search and Bard exist as two distinct things. But Google's finally looking at combining the two in some form. Makes its search more conversational. And that means, you won't need to turn to ChatGPT to have a conversation about toothbrushes anymore. You might be able to do it straight on Google search.

But what about the existential threat to Google's ad search revenue, you ask?

Well, Google isn't reimagining search completely just yet. It's quite addicted to the billions in ad search revenue. So, it's playing it safe. From the initial videos, it looks like Google will simply spit out a conversational answer at the top. Make you feel like you're talking to a helpful stranger. But it'll still give a bunch of links and advertising that you can click on. So, you can buy that 'recommended' electric toothbrush straight from Google search.

It wins. You win. And maybe ChatGPT loses.

Also, with AI finding its way into virtually every Google product in the ecosystem, you can be sure that it takes away more use cases of ChatGPT. Such as the mundane task of writing emails.

Basically, by giving people AI features in existing products that they already love using, Google's finally trying to win the AI battle.

**By Anjali Baghel**

# Update for the day #1786| The Stories Of Athletes

Just think of a few of the challenges athletes face. They may have to cope with exhausting training schedules, lost matches, injuries, missed milestones, heartbreaking failures, and personal adversity. If they are female they may have to face health problems related to irregular eating habits and menstruation which in turn can aggravate bone loss. Here are stories of 5 athletes who faced enormous challenges and refused to be beaten. If these stories fail to motivate you, then I do not know what will!

**1. Michael Jordan, basketball player.**

"When you're in a rhythm during the season, you're going to fail seven out of 10 times,"- Mark Texeira, Yankees

Michael Jordan has been praised to the skies and is often referred to as the best basketball player of all time. He attributes his success to his many failures because he has claimed they made him try even harder. They certainly did not discourage him. When he was very young, he was not even thought to have a great talent. He was cut from the high school basketball team. He has actually counted his failures and they include 300 lost games and he has missed taking the game winning shot 26 times. Most champions are discouraged and unmotivated by failures but Michael Jordan had the right attitude and regarded them as the recipe for his success.

"I know that fear is an obstacle for some people, but for me it is just an illusion….. Failure always makes me try harder on the next opportunity."- Michael Jordan.

**2. Muhammad Ali, boxer.**

"He who is not courageous enough to take risks will accomplish nothing in life." – Muhammad Ali

Regarded as the greatest boxer of all time, Muhammad Ali won many wards such as the Golden Glove and an Olympic Gold medal at the 1960 games in Rome. He has inspired many people by his career and his way of life. After retiring from the ring, he devoted his life to philanthropy and charities, especially those connected with Parkinson's disease from which he suffered. Muhammad Ali was no stranger to risk. From the early age of 12 when someone stole his bike, he was determined to take on any future thieves, so he learned how to fight.

Many athletes go through a very difficult process of coping with perfectionism and their fear of failure. This often prevents them from reaching their full potential. Anything less than perfection and winning is counted as failure. What athletes do not want to happen often does because they are haunted by fear of making mistakes. This mindset results in more tension, indecision and being too careful. Muhammad Ali was a superb example of taking calculated risks and has remained an inspiration for many generations.

**3. Michael Phelps, swimmer.**

Michael Phelps is considered the greatest Olympian swimmer of all time. Everyone thought that no swimmer would be able to win 8 gold medals in just one Olympic Games. Michael did just that and he has 19 Olympic medals, 15 of which are gold! The remarkable thing about him is that as a child he suffered from ADHD and was on medication for some of that time. Most people assume that people with ADHD suffer from restlessness, impulsiveness and a very short attention span. But they also have an incredible capacity to remain hyperfocused on an activity they are passionate about. Michael has been able to use this with enormous success. By channelling his energy and focus, he has been able to exploit the positive side of ADHD.

Phelps has shown that he can beat the most disciplined and strongest swimmers in the world and is an inspiring example to anyone who suffers from a mental disorder or other disability. He has another secret in that he uses the power of visualizing success before he starts any swim. He started this process when he was only 7 years old. He realized there were no limits to success and once you are passionate about your objective, nothing can stop you.

“Nobody is going to put a limit on what I’m doing. I’m going to do what I want to do, when I want to do it. That is how I have always worked. If I want something I am going to go and get it.”- Michael Phelps.

If you feel exhausted or discouraged after your next marathon, just think about one of these inspiring champions before you actually give up!

**By Chandana D**

# Update for the day #1787 | India's First Green Hydrogen Fuel Cell Bus

In a groundbreaking move towards sustainable transportation, India is set to inaugurate its first Green Hydrogen Fuel Cell Bus, marking a significant step in the country's efforts to embrace eco-friendly and low-carbon mobility solutions. The launch, scheduled for September 25, 2023, holds great promise for India's transition to cleaner and more self-reliant economic development.

**The Power of Green Hydrogen**

Green Hydrogen, produced using renewable energy sources, has emerged as a game-changer in India's quest for sustainable energy solutions. It harnesses the country's abundant renewable energy resources and offers versatile applications, from fuelling vehicles to supporting critical industrial processes such as petroleum refining, steel production, and fertilizer manufacturing.

**Fuel Cell Technology**

At the heart of this innovation lies fuel cell technology, which utilizes hydrogen as fuel. In a fuel cell, hydrogen and oxygen engage in an electrochemical reaction, generating electrical energy and water as byproducts. Fuel cells offer distinct advantages over traditional batteries, including higher efficiency, extended range, and faster refuelling times.

**Indian Oil's Pioneering Effort**

Leading the charge in this transformative endeavour is Indian Oil, which has undertaken a program to test 15 Fuel Cell buses powered by Green hydrogen on designated routes in Delhi, Haryana, and Uttar Pradesh. The launch of the first two buses from India Gate heralds the beginning of this groundbreaking initiative.

**By Namratha DV**

# Update for the day #1788 | How recognizing cultural practices in environmental regulation can help protect natural resources like sandalwood

How recognizing cultural practices in environmental regulation can help protect natural resources like sandalwood

Conserving or protecting natural resources, like landscapes or products, can involve limiting people's access or use. When natural resources are connected to cultural, religious or spiritual practices, conservation needs to consider both biological and cultural diversity.

Indian or red sandalwood (Santalum album), highly valued for its wood and oil, is a natural resource with significant economic and cultural value. The fragrant wood is used for carvings, furniture and in buildings, while the oil distilled from its heartwood has perfume, incense and medicinal applications.

Not only is sandalwood historically significant to Asian, African and Middle Eastern cultural practices as a perfume, incense or medicine, but it gained increasing popularity in the West for its properties that made it an ideal perfume fixative.

"Sandalwood is one of the best vehicles or fixatives in perfumes," says Hettiarachchi. "It has been there from some of the earliest perfumes created in western or modern perfume styles."

A history of endangerment

Ezra Rashkow is an environmental and South Asian historian at Montclair State University in the U.S. His research considers historical environmental conservation policies as they relate to the endangerment of natural and cultural resources.

Rashkow describes sandalwood as a natural resource that has often been regulated for various political and economic reasons.

"As early as the 1790s, really, in India, under the ruler of what's now the Mysore region in Karnataka state, I believe it was 1792 when Tipu Sultan declared Indian sandalwood a royal tree and designated it as a protected species." Later, British colonial forces — who had already exploited other sandalwood species throughout the Pacific Islands — placed Indian sandalwood under their protection, while they harvested the tree for trade with China.

"Sandalwood finds an extremely important place in early colonial world history because sandalwood was one of the very few commodities that the Chinese were willing to trade for gold and silver," Rashkow explains.

The demand for sandalwood, along with its overharvesting to meet this demand, resulted in very few sandalwood trees remaining in India. Because it is a hemi parasitic tree, cultivating it had been challenging until recently.

Sandalwood's availability is also complicated by a fungus that causes spike disease and deforestation, as well as the fact that it can take up to 20 years for a tree to reach maturity.

Intertwining nature and culture

Nature became separated from culture beginning with the Renaissance period, and this has increased throughout the Industrial era.

Jules Pretty, professor of environment and society at the University of Essex in the United Kingdom, studies human-environment relations.

"Nature and culture, they are the same thing. They have always been the same thing in human history until a kind of separation of nature and people (came along) with agriculture, cities, modern economies, and so forth."

Pretty describes sandalwood as a perfect example through which to explore the relationships between nature and culture.

"A lot of people value sandalwood. It's closely intertwined into cultures and people feel as though it's a central part of their lives."

Pretty believes that lessons about sustainability can be learned from the management of sandalwood. "It is a sacred tree in many communities in southern India, for example, and because it has that kind of characterization, that value of being sacred, then it's looked after in a particular kind of way, which again, gets us back to thinking about sustainability."

**By Vinisha S M**

# Update for the day #1789 | Nuclear Energy Is Surprisingly "Green" And Safe

The world nuclear Association reports the nuclear energy industry experienced almost no accidental deaths per unit of electricity generated. For comparison, the coal industry experiences 120 fatalities due to accidents per terawatt year, whereas nuclear experiences less than .01. Oil and natural gas report nearly 100 and 72 deaths per terawatt year, respectively. A terawatt year is the amount of electricity used globally in approximately five months.

There have only been two significant nuclear accidents in recorded history: Chernobyl in 1986 and Fukushima Daiichi in 2011. And of the two, only Chernobyl caused any fatalities due to radiation exposure. The accident occurred because of poor safety regulations and faulty reactor design. However, there were less than 30 deaths due to radiation sickness caused by the accident. And less than 50 total, including related fatalities in the following years.

The Fukushima Daiichi accident happened when the strongest earthquake ever recorded in Japan's history triggered a massive tsunami. The March 11, 2011, tsunami flooded the Fukushima Daiichi nuclear power plant, destroying the cooling system. However, there were no cases of radiation sickness related to the meltdown.

Nuclear energy is environmentally friendly when handled correctly.

According to the US Energy Information Administration, nuclear power reactors emit zero carbon dioxide emissions into the atmosphere. Although the processes for mining uranium and creating reactor fuel can create fossil fuel emissions. Additionally, radioactive waste created can be dangerous to humans and the environment.

However, when handled properly, the waste created by nuclear reactors poses no threat to the environment. Proper protocol sees low- and high-level radioactive waste stored in specially designed containers that prevent radiation from leaking into surrounding environments. And there are strict decommissioning regulations closed reactors undergo before using the property for other purposes.

**By Dhanush M**

# Update for the day #1790 |Synthetic Human Embryos: A Breakthrough or A Dilemma

Synthetic human embryos, or SHEEFs (Synthetic Human Entities with Embryo-like Features), are structures that resemble early human embryos but are made from stem cells without the direct contribution of egg or sperm cells.

These structures have the potential to provide valuable insights into human development, genetic disorders, and pregnancy loss, but also raise serious ethical and legal questions about their status, use, and regulation.

What are Synthetic Human Embryos and How are They Made?

About Synthetic Human Embryos (SHE): These are not formed by the fusion of an egg and a sperm cell. They are made from pluripotent stem cells, which are cells that can develop into almost any cell type in the body.

These stem cells can be derived from embryos, or reprogrammed from adult cells, such as skin or blood cells.

Creating SHE: By manipulating the culture conditions and the signals that guide cell differentiation, researchers can coax stem cells to self-organize into three-dimensional structures that mimic some aspects of early embryonic development.

For example, these structures can form a blastocyst-like cavity, a placenta-like tissue, and a primitive streak-like structure, which marks the beginning of gastrulation, the process by which the three germ layers (ectoderm, mesoderm, and endoderm) are formed.

First SHE: The first synthetic human embryos were reportedly created by a team at the University of Cambridge and the California Institute of Technology and their work was presented at the International Society for Stem Cell Research in June 2023.

According to the report, these synthetic human embryos were grown to a stage equivalent to just past 14 days old, which is the legal limit for studying natural human embryos in many countries.

**By Tejas Chandra**

# Update for the day #1791 | PM Modi underlines importance of free and open Indo-Pacific

PM Modi underlines importance of free and open Indo-Pacific

Prime Minister Narendra Modi Monday underlined the importance of a free and open Indo-Pacific for the Pacific island nations and said the Quad is working in this direction.

In an address at the FIPIC (Forum for India-Pacific Islands Cooperation) summit, Modi also emphasised the need for multilateralism and respecting the sovereignty and integrity of all countries. The summit took place at a time when China is making efforts to enhance its military and diplomatic influence in the region.

"Like you, we believe in multilateralism; support a free, open and inclusive Indo-Pacific and respect the sovereignty and integrity of all countries," Modi said. He said the Quad — comprising Japan, India, Australia and the United States — is working towards it.

"We are ready to share our abilities and experiences with you without any hesitation — be it digital technology or space technology, be it health security or food security, be it climate change or environmental protection. We are with you all the way," he said.

Modi also asserted that the voice of the global south should be a priority for the UN Security Council. "For this, reform of international institutions should be our shared priority," he said.

The summit was co-chaired by Prime Minister Modi along with his counterpart from Papua New Guinea.

India's engagement with the 14 Pacific Island Countries (PICs) is part of New Delhi's Act East Policy. A major part of India's engagement with PICs is through development assistance under South-South Cooperation which is mainly in the form of capacity building and community development projects.

A major initiative launched under the rubric of the Act East Policy for the PICs is the Forum for India-Pacific Islands Cooperation (FIPIC). Prime Minister Modi hosted the first FIPIC summit in Suva on November 19, 2014, during his visit to Fiji.

The second FIPIC summit was held in Jaipur on August 21 again with all 14 PICs taking part.

**By Tushar U**

# Update for the day #1792 | Why ₹ 2,000 Note Was Introduced, And Why It's Being Junked

The ₹ 2,000 banknote was introduced in November 2016 under Section 24(1) of the RBI Act, 1934 -- which allows the central bank to issue notes of any denomination not exceeding ₹ 10,000 -- primarily to meet the currency requirement of the economy "in an expeditious manner" after the big demonetisation exercise, in which the legal tender status of all ₹ 500 and ₹ 1,000 banknotes in circulation at that time was withdrawn, the Reserve Bank of India has said.

"With fulfilment of that objective and availability of banknotes in other denominations in adequate quantities, printing of ₹ 2000 banknotes was stopped in 2018-19," RBI said.

RBI Governor Shaktikanta Das today said the exercise is part of the "currency management system" of the central bank, and "there's no reason to rush to banks" as people have four months to change or deposit ₹ 2,000 notes.

Mr Das said the bank expects most notes to come back. "We will decide what to do next after September 30. But it will continue as legal tender," he said and assured the people, even those living in foreign countries, that the RBI will be sensitive to all their problems.

Rs 2,000 notes in numbers

A majority (89 per cent) of the ₹ 2,000 notes were issued before March 2017, and are at the end of their estimated life span of four to five years, the central bank said, highlighting that ₹ 2,000 notes are not commonly used for transactions.

"The total value of these banknotes in circulation has declined from ₹ 6.73 lakh crore at its peak as on March 31, 2018 (37.3% of Notes in Circulation) to ₹ 3.62 lakh crore constituting only 10.8% of Notes in Circulation on March 31, 2023," RBI said.

In absolute numbers, there were 274 crore ₹ 2,000 notes in circulation in 2020, comprising 2.4 per cent of total currency notes, which declined to 245 crore in 2021 (2 per cent) and further dipped to 214 crore in 2022 (1.6 per cent).

RBI also has adequate stock of banknotes in other denominations, it said.

What is the "Clean Note Policy"

Rs 2,000 notes have been withdrawn under the central bank's "Clean Note Policy".

The objective of RBI's "Clean Note Policy", introduced in 1999, is to provide good quality currency notes and coins while the soiled notes are withdrawn out of circulation. The Reserve Bank had then instructed the banks to issue only good quality clean notes to the public and refrain from recycling the soiled notes received by them over their counters.

Several other steps were taken, including directing banks to do away with stapling of note packets and to introduce banding the packets with paper/polythene bands so that the life of the currency notes is increased. People were also urged not to write on the currency notes, and banks were instructed to provide unrestricted facilities for the exchange of soiled and mutilated notes. As per the Reserve Bank instructions, currency chest branches of the banks must offer, even to non-customers, good quality notes and coins in exchange for soiled and mutilated notes.

How the exchange facility will work

India's biggest public bank, the State Bank of India, yesterday clarified that no form or slip would be required while exchanging or depositing ₹ 2,000 notes.

Government sources have said people can exchange ₹ 2,000 rupee notes up to ₹ 20,000 any number of times in a day. A person has to stand in a queue, and they can keep coming back and stand in the same queue after exchanging the money, they said. The upper limit of ₹ 20,000 is to ensure operational convenience and to avoid disruption of regular activities of bank branches.

The exchange facility begins on May 23 and will continue till September 30. The RBI may extend the deadline to exchange or deposit the notes from September 30 if needed, but even if anyone has a ₹ 2,000 note after the current deadline, it will remain a valid tender.

On the decision to set September 30 as the deadline, the RBI Governor said people wouldn't have taken it seriously and exchanged notes if they hadn't specified a time.

It is not necessary for a person to be a customer of a bank to exchange the soon-to-be-discontinued currency with them.

RBI's instructions to banks

The RBI clarified that people don't have to pay any fee to avail of the exchange facility. Further, banks have been instructed to make arrangements to reduce inconvenience for senior citizens and persons with disabilities who wish to exchange or deposit ₹ 2,000 banknotes.

In a fresh circular to banks today, RBI has directed them to maintain daily data on deposits and exchange of ₹ 2,000 notes in a simple, fixed format. It has also asked them to provide facilities like shaded waiting spaces, and drinking water to customers, considering summer.

**By Pooja Naik**

# Update for the day #1793 | The return of Shein

# and Indian Baobabs

The summer's in full swing and so is the mango season. And there's one funny thing about India's mango production. We are actually the biggest mango producer globally. You could say that nearly half of the world's mangoes are produced in India. But less than 1% of them travel to international markets. Guess why?

Well, Indians love mangoes so much that they consume almost all the mangoes that the country produces. That's nearly 11 million tonnes! This may not be so hard to believe as well, since India doesn't just eat mango as a fruit, but also uses it in both ripe and raw forms to make aamras, chutneys, pickles and curries.

Besides, Zepto has proof of India's mango mania. According to its latest data, the delivery app has sold mangoes worth a whopping 25 crores in April alone! That too in just about 10 cities that it operates in.

And unsurprisingly it was the famous Alphonso mangoes that wore the crown by making up nearly 30% of Zepto's mango sales.

How many mangoes have you eaten this season? Or should we ask how many varieties, because keeping track of the number can be tedious no?

Let's roll....

A couple of things that caught eye

Can Shein make a successful comeback?

Shein needs no introduction. You probably know it as the Chinese fast fashion app that was banned by India in 2020 over cross-border security concerns. But even before the ban the controversial app made quite a name for itself.

Within just a year of its Indian launch in 2017 for instance, it had garnered over 5 million downloads, a million daily active users and 10,000 orders every day with an average order value ranging between ₹1,000 and ₹1,500.

And by the time the company planned to triple its business here, the government decided to give Shein the chop along with 58 other Chinese apps.

But now, the rumour is that Shein is all set for a resurrection in India. But wait….isn't India still uncomfortable with the idea of Chinese apps?

Well, that's a pretty valid question. But the Chinese app itself isn't coming back. Shein, China will license its technology and trademarks to Reliance Retail Ventures Private Limited — Reliance's retail arm. And the operations will be completely run by the Indian company. Yup, Reliance.

So, can Shein be successful?

Well, between the time of Shein's disappearance and FY22, there have been significant investments in startups and global companies that cater to Gen-z's fashion needs. Everyone wants fashion and everyone wants it fast. So it isn't surprising that venture capitalists struck 31 deals amounting to $212 million with fashion brands like Stumbl, Zouk and Virgio in FY22 alone.

Sure, the funding winter may have affected the number of deals in FY23. However, that doesn't erase Gen-z's hunger for frequent wardrobe makeovers.

But here's the thing. These brands like Urbanic or BlissClub came in to fill the void Shein created when it left. So all of Shein's customer base spread over these newly sprung companies in due course. This means that it could be hard to regain its past glory.

Then there are concerns about Shein's plagiaristic practices and labour exploitation. It is no secret that the company has been a controversy magnet. In 2021, Levis filed a suit against it for stealing its jeans stitching patterns which the former had trademarked. That's not all, brands like Mara Hoffman, Puma, Adidas, H&M and Ralph Lauren have also sued Shein for making confusingly similar apparel and competitive yet unfair pricing.

Besides, Shein has also been accused of exploiting Chinese labourers who are made to work even 75 hours a week so that the brand can produce cheap apparel. And lawmakers in the US are already prodding it to reveal its labour practices before it goes public in the US markets.

And if the audit unravels any nasty deets, then well, it may not be good news for Shein's partnership with Reliance in India. What do you think?

The Bhils and their Baobabs

Trees can be worth a lot of money. They can be of medicinal value, their barks can make great spices and their trunks can go into making furniture. But imagine a tree worth ₹10 lakh.

We're talking about the African Baobab that has spread its roots in India and is a prized possession to the Bhil tribes of Madhya Pradesh. And recently it's been in the news for its ability to strike rivalry between the Bhils and Hyderabad's rich businessmen.

You see, the Baobab doesn't belong to India and it isn't even clear how it landed here. But historical hearsay suggests that they may have been planted by African soldiers who worked for Islamic kings between the 10th and the 17th centuries. Today there are just about 1,000 of them spread across Mandu in Madhya Pradesh. You could find a few in Mumbai too. But they are being chopped down to make way for roads and buildings.

And the Baobab is considered the tree of life by the Bhils. It can survive for centuries together. It can store a lot of water in its hollow trunk which is a great relief for the tribes during the dry seasons. Its fruit brings food to their plates, the seeds go into making oils and literally every part of it has medicinal properties.

But now, wealthy businessmen want a share of this bounty and have been relocating them from Mandu to their warehouses so they can sell them off to clients at exorbitant prices. And apparently, the forest officials have permitted this activity. The Bhils though aren't quite happy. They believe that if anyone wants to make a living out of these trees, then they must buy seeds from nurseries rather than uprooting them. The Baobab is actually an endangered species. So their argument makes sense. Besides, if all the trees are gone, then it'll be hard for the Bhils to make ends meet no?

So, a couple of days ago, the Madhya Pradesh High Court seems to have heeded their unasked requests and stayed the felling and trading of Baobabs in a suo moto (action taken by a court without anyone filing a suit) hearing.

And we won't know until July, what fate has in store for the Bhils and their Baobas. We surely hope that the court imparts justice. By the way, all this happened after Hindustan Times published a report on the matter. It's incredible what good journalism can still do eh?

Here's a soundtrack to put you in the mood ♫

Saal by Ishpreet Singh

**By Charvika Rathore**

# Update for the day #1794 | India's new Parliament building: Significant features

The old building could seat 543 Members in the Lok Sabha and 250 in the Rajya Sabha. The new Parliament building will have space for 888 members in the Lok Sabha and 384 members in the Rajya Sabha.

Come May 28, India will have a new seat of power when PM Modi inaugurates India's majestic new Parliament building. On the eve of this significant occasion, here's looking at the key features of the new symbol of Indian democracy.

The construction of the original parliament building was completed in 1927. The almost-a-century-old structure was increasingly being found to be inadequate to service the government's present-day requirements. Keeping this in mind, both the Lok Sabha and the Rajya Sabha passed resolutions to construct a new building for the Parliament. After due process, the foundation stone of the new building was laid on December 10, 2020 by PM Modi.

The old building could seat 543 Members in the Lok Sabha and 250 in the Rajya Sabha. The new Parliament building will have space for 888 members in the Lok Sabha and 384 members in the Rajya Sabha.

Key things to know about the new building:

The structure is built over an area of 64,500 square meters.

The new Parliament, constructed on the lines of the Central Vista buildings, is a triangular structure. It houses the Lok Sabha, the Rajya Sabha, the Central Lounge and offices of constitutional authorities.

The new Lok Sabha Chamber is designed in the likeness of India's National Bird, the Peacock. The new Rajya Sabha Chamber, on the other hand, bears similarities to the National Flower, the Lotus.

As a whole, the newly constructed building reflects various architectural influences from important heritage buildings of India, such as the Rashtrapati Bhavan, the govt's official document says.

Around 800 chambers for MPs are being constructed in the redeveloped Shram Shakti Bhawan. Their construction, which started in April 2022, is scheduled to be completed by March 2024.

The old building will continue to be used. The basic architectural strategy is to make the two buildings complement each other. As per the govt's stated plan, full care will be taken to retain the old building's historical heritage.

Efforts are on to make sure that there is no change to the visibility of the original Parliament House after the construction of the new building. All the statues situated in the Parliament Complex will also be restored.

The new building will have six Committee rooms. The present structure has three such rooms. There will be 92 rooms for the use of the Council of Ministers.

In the new building, two members will be able to sit side by side on each bench in the Lok Sabha and the Rajya Sabha Chambers, says the govt's official document. Each seat will be equipped with digital systems and touch screens.

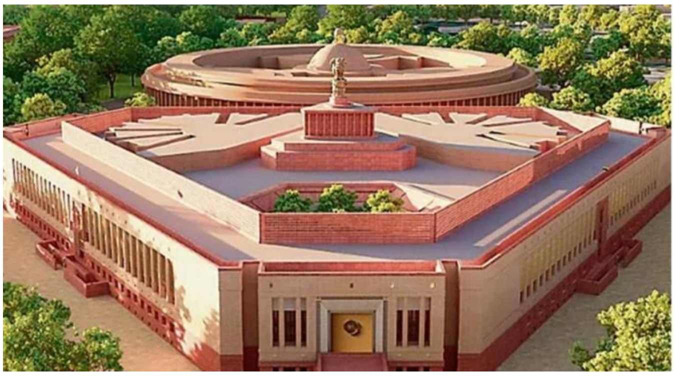
A central courtyard will make for an open meeting space for Members of both houses. The facility is designed to meet high-level of security standards.

The new building will have a Constitution Hall for the purpose of showcasing India's democratic heritage. Other upcoming structure include a library, a dining room and ample parking for the members.

The new building will feature rainwater harvesting and water recycling systems. Provision of 100% UPS power backup will be made throughout the building, the document states.

The designing of the new building was done by Ahmedabad-based HCP Design and Management Pvt Limited. Tata Projects won the contract to build the new Parliament building, a part of the Centre's Central Vista redevelopment plans.

The current Parliament consists of Sansad Bhawan (Parliament House), Reception Office Building, Sansadiya Soudha (Parliament House Annexe), Extension to Parliament House Annexe and Sansadiya Gyanpeeth (Parliament Library Building).



**By KK Krupa**

# Update for the day #1795 | India top destination being explored by MNCs as alternative to China, finds global CEO survey.

India is the top destination being explored by multinational corporations as an alternative to China, according to a survey of 100 CEOs who primarily represent foreign B2B-focused firms.

The CEOs also consider Vietnam, Thailand, and their own home countries as potential options.

Amid China's increasing geopolitical assertiveness, questionable trade and business practices, and rising labor costs, 88% of the CEOs who participated in research firm IMA India's 2023 Global Operations Benchmarking Survey opted for India as their primary alternative to China. The survey was run among companies with a presence in India.

"In the last five years foreign MNCs have increased their on-ground presence in India, partly because of diversification away from China. In particular, the IT & ITES companies are ramping up the share of their global workforce that is based in India," said Suraj Saigal, Research Director, IMA India.

According to a report based on the survey, nearly 70% of the firms saw substantial changes to their business strategies and on ground operations in China in the past three years. The industrial sector shows a more prominent pullback compared to the services sector. Among those implementing changes 56% have decreased their sourcing from China and 41% reduced investments.

The research also examined how businesses are perceiving and capitalizing on the opportunities presented by India, considering the recent shifts in commercial and geopolitical strategies.

From FY18 to FY23, India's estimated global share in workforce has increased from 22.4% to 24.9% in mean percentage terms, while revenue share has risen from 14.8% to 15.8%. These figures demonstrate incremental growth for India on the global stage during this period.

As per the study, a larger proportion of manufacturing companies, in comparison to service-based companies, has chosen India, Vietnam or Thailand as their alternative to China.

This trend suggests that many businesses are actively considering the necessity of de risking their supply chains. Over 80% of the surveyed services companies said their recent expansion of Indian operations was influenced to some extent by considerations related to a China-plus strategy. Industrial companies show a lower percentage, with over 37% potentially more drawn to alternative geographical locations. When asked about their strategic options regarding off-shoring, re-shoring, friend shoring, or near-shoring, survey respondents indicated a slight preference for offshoring. About 45% of the companies have either already implemented or are seriously considering offshoring as their preferred choice, surpassing other alternatives.

However, even those that did choose India indicated infrastructure, regulation, and skill-related issues as serious challenges. The study identified the increasing popularity of friend-shoring because of the global shift away from multilateral trade towards bilateral trade relations. The rise of deglobalization protectionism, and nationalism has created an environment where countries prioritize working with partners with existing friendly bilateral ties rather than relying on global or regional trade agreements.

**By Shreemanth B**

# Update for the day #1796 | 'Sengol' in parliament: History and significance

'Sengol' in parliament: History and significance

Sri Harihara Gnanasambanda Desika Paramacharya, the 293rd pontiff of the Madurai Aadheenam, will hand over the sacred 'Sengol' to Prime Minister Narendra Modi on May 28 on the occasion of the inauguration of new parliament building.

The event is to honour the Chola system of power transfer and to re-enact the historical ceremony in which Jawaharlal Nehru, the first prime minister, was given the 'Sengol' when India gained independence in 1947.

In August 1947, Lord Mountbatten asked Nehru if he had any symbolic ceremony in mind to officiate the transfer of power. Nehru consulted C. Rajagopalachari, the last governor general of India. It was Rajaji, as Rajagopalachari was fondly called, who suggested that they hold a ceremony in the traditional Chola fashion. The transfer of power during Chola times was sanctified by Shaivite high priests.

Rajaji approached the Madurai Aadheenam for a sceptre. The then seer of the Thiruvaduthurai Aadheenam, Sri La Sri Ambalavana Desika Swamigal, assigned Vummidi Banru Chetty, a jeweller, to make a five-foot tall sceptre.

The Thiruvaduthurai Aadheenam claims it was in charge of handing over the ‘Sengol’ to Lord Mountbatten who then presented it to Nehru on the eve of India's independence. A spokesperson of the Aadheenam told The Hindu that the souvenirs published after the independence had recorded this event.

Copies of these souvenirs, which were handed over to journalists, however, had neither mentioned any dates not did they make any reference to the Aadheenam.

Aadheenams are a non-Brahmin Shavite order established to develop and spread the Shaiva ideology. It is believed that the Madurai Aadheenam was founded by Lord Shiva and Devi Parvati. Around 1,500 years ago, saint Thiru Janasambandar, who is considered the first apostle of the Shaiva philosophy, revived this Aadheenam.

Born in 1954 as Bhagavati Laskmanan to Gandhimadhinadhan Pillai and Janaki Ammai, Sri Harihara Gnanasambanda Desika Paramacharya Swamigal became a saint when he was just 21. For the next 39 years, he held multiple positions in famous Shavite mutts such as Kundrakudi Aadheenam, Thiruvavadudurai Aadheenam, and Dharmapuram Aadheenam, say reports. He was chosen by Srila Sri Arunagirinatha Gnanasambantha Desika Paramacharya, the head of the then Madurai Aadheenam, as his successor in 2019.

On June 6, 2019 after the 292nd pontiff's passing, the head of Dharumai Aadheenam declared junior pontiff Sri Harihara Gnanasambanda Desika Swamigal as the 293rd pontiff.

Swamigal told ANI that he appreciated what Prime Minister Modi was doing for the people and was looking forward to seeing his victory in the next year's elections as well. Sri la Sri Ambavanan Desika Paraacharya Swamigal of the Thiruvaduthurai Aadheenam also told a TV channel that all the Aadheenams flying to Delhi for the historical event were happy to give the sceptre to the prime minister.

Addressing a press conference in Chennai on Thursday, Union Finance Minister Nirmala Sitaraman had said that 20 Aadheenams have been invited for the inauguration ceremony where the 'Sengol' will be installed permanently in the new parliament building. Among those invited were the Thiruvaduthurai, Perur, and the Madurai Aadheenams.

"The pontiffs will attend the event, there will be Oduvars (Tamil temple singers) who will recite the Thevaram. In 1947 also, the Oduvars recited Kolaru Pathigam when the 'Sengol' was handed over to Nehru," she had said.

The 'Sengol' is set to be installed in a very ceremonious fashion adhering to Tamil traditions. A group of musicians playing the Nadaswaram will lead the procession. The Aadheenams will be purifying the 'Sengol' with holy water while Oduvars (Tamil temple singers) chant hymns in the background. Following this, the prime minister will install the scepter in a glass cage next to the Lok Sabha Speaker's seat in the new parliament building.

**By Dhanush Gowda**

# Update for the day #1797 | Isro's GSLV-F12 successfully places navigation satellite NVS

The Indian Space Research Organisation (Isro) on Monday successfully placed NVS-01, the first of the second-generation satellite series, into geosynchronous transfer orbit. A Geosynchronous Satellite Launch Vehicle (GSLV) in its 15th flight placed the satellite, which will ensure the continuity of navigational (NavIC) services and also provide new service in L1 band.

On Monday at 10.42am, GSLV-F12 lifted off from the second launch pad at Satish Dhawan Space Centre, Sriharikota High Altitude Range. Around 19 minutes after the lift off, the rocket successfully placed the 2232kg weighing satellite at 251km altitude.

ISRO chairman S Somnath said that the GSLV placed the satellite in the precise orbit. "After the issue in the cryogenic stage in the GSLV-F10 launch, corrections and modifications were made. NVS-01 is the first in the series of five satellites," he said.

He also said with GSLV "there were issues in the past but I am sure that the full configuration we all dreamt to make it operational is on the way. The next GSLV launch will be with climate and weather observation satellite Insat-3DS and also in another launch it is bound to take India-Nasa synthetic aperture radar. "

The 51.7m tall GSLV, with a lift off mass of 420 tonnes, is on its 9th flight with indigenous cryogenic stage and 6th operational flight with the indigenous cryogenic stage.

Isro officials said NVS-01 satellite is built around the standard I-2K bus and compatible with GSLV. The satellite carries navigation payloads operating in L1, L5 and S bands. The satellite is powered by two solar arrays, capable of generating power up to 2.4kW and a lithium-ion battery supporting payload and bus load during eclipse. The mission life of NVS-01 is expected to be better than 12 years.

Officials said compared to the first generation satellite series, the second-generation satellite series includes L1 navigation band and encompasses indigenously developed rubidium atomic clock. The rubidium atomic frequency standard (RAFS), the atomic clock which is the heart of the satellite, acts as a stable frequency reference for the navigation payload.

The key applications of Navic include terrestrial, aerial and maritime navigation, precision agriculture, geodetic surveying, emergency services, fleet management, location-based services in mobile devices, orbit determination for satellites, marine fisheries, timing services for financial institutions, power grids, and other government agencies, internet-of-things (IoT) based applications and strategic applications.

**By Bhavna B V**

# Update for the day #1798 | How does the RBI make money?

The RBI is a not-for-profit organization*. Yet, it made a profit of nearly ₹2.20 lakh crores in FY23! How on earth did it achieve this, you ask? Through a simple process called seigniorage. Now this is just a fancy term for the profits that the bank makes by printing currency. Think about it this way. If the RBI prints a ₹100 note and gives it to a bank for circulation, the bank doesn't get it for free. It has to 'buy' the note and transfer the full-face value of ₹100 to the RBI's coffers.

But here's the thing. The RBI basically whipped this note out of thin air. The only cost it incurred was probably around ₹2 to print the note. Put another way, the RBI spent ₹2 and created ₹100 in face value and the profit for the central bank is derived from putting that ₹100 to good use. That profit is called seigniorage.

So, what does it do with these profits? Well, it puts the money to work. And tries to make even more money for itself. For instance, it can lend this money to banks for their daily needs. That fetches interest for the RBI. Then there's the Indian government which also needs money for its activities. And when the government issues bonds to borrow money from people, the RBI steps in here too. It buys these bonds and pockets a nice sum of interest from the government.

Then it can buy foreign assets. Such as US government bonds. It earns interest and has the benefit of giving the RBI some exposure to the dollar. Or it can just buy and hold dollars by itself. And when the value of the dollar rises, the RBI can act proactively, sell it and pocket the gains. In fact, just by buying low and selling high last year, the RBI made over ₹1 lakh crores in forex trades. Basically, the RBI prints or creates a bit of money and then uses that to make a whole lot more. The end result of all this is that the RBI earned a grand total of ₹2.35 lakh crore in FY23—a whopping 47% higher than the previous year.

It gets to pocket most of this because it doesn't have too many expenses either. There is the cost to print notes. Then it delegates some form of government-related work to other banks, and it pays them a fee for that. And finally, it needs to pay everyone on its payroll. Put together, this comes up to just about ₹15,000 crores. And since the RBI isn't really a 'for-profit' entity, it doesn't pay any income tax. Ergo, the massive profits of ₹2.20 lakh crores! And what does it finally do with these profits? Well, the RBI is a prudent money manager. So, when it makes a windfall, the first thing it does is save a chunk of it for a rainy day. It pushes money into its contingency fund. Something it can dip into if there's an unprecedented event that rocks the economy—say if some of its investments fail or a pandemic hits again and we need to protect the banking system. And this year, it decided to move ₹1.30 lakh crores into this fund to be on the safe side.

Now if you jot these numbers down on a spreadsheet, you'll see that there's still money left over. In fact, the net income for the RBI was approximately ₹87,000 crores in FY23. But it doesn't really keep this for itself too. Instead, it transfers this to the government as a dividend. See, typically the government spends more than it earns. It needs to build infrastructure, dole out subsidies for social welfare schemes, and beef up the military… there are a whole lot of expenses. And we end up borrowing money and paying interest on it. So, any bonus money really helps. And since the RBI is technically owned by the government, it gets its share of profits too. So yeah, because the RBI had quite a bonanza this year, not only was it able to build its contingency fund but it could even transfer the nice chunk of ₹87,000 crores to the government as a dividend too.

And now you know how the RBI makes and spends its money.

**By Muskan Jamadar**

# Update for the day #1799 | Why did Amazon buy MGM Studios?

Amazon can only turn consistent profits when people stay loyal to the brand. However, loyalty isn't a feature of the e-commerce industry. People now have equal access to most platforms and they'll choose a provider that offers them the base value for the buck. So what do you do? Well, perhaps the only solution then is to induce loyalty by tying customers to your brand perpetually. Amazon does it by leveraging Amazon prime memberships. You get faster shipping, free delivery on certain items, and a whole load of other perks. All you have to do is pay the entry fee and become a priority customer.

Once you make that investment, however, there is no going back. You'll keep buying from Amazon, come what may. So if Amazon could only get you to try out the membership once, they'll likely tie you down for life. But it isn't easy to get you to shell out Rs. 1000 every year.

Unless that is, you were also offered access to Prime Video—Amazon's amazing content library. In fact, you can't access the video library by subscribing to the service separately. You have to buy the Prime Membership to access Prime Video. And since the content is so appealing, maybe you'll just subscribe, even if you didn't want all those other perks (including free shipping).

Bottom Line—If Amazon were to produce a movie so successful that it won the golden globe, that would likely help them get more Prime subscribers on board. Maybe it'll help them sell more shoes, as well. Get it?

But to make Prime Video more appealing, Amazon needs content and lots of it. They've already spent a fortune in licensing deals and producing original shows. Last year they spent a cool $11 billion. This year, they'll likely spend more. Why?

Well, that's the only way they can stay competitive. Netflix has been in the streaming business for ages now. Disney and HBO have also been around for decades and they have inherited copious amounts of legacy content that will drive subscriptions for years to come. The only way to stay competitive is to keep updating your library with new content. If they don't, then Prime Video becomes a fringe offering that won't drive subscriptions. The shoes won't sell themselves. So this is the only way out.

And MGM—well it fits the bill just right. The studio has a treasure trove of content—Thousands of episodes of television and hundreds of blockbuster movies. It has an impressive catalog of film franchises including, money-spinners such as James Bond and Rocky. And while at it, Amazon also gets access to MGM's intellectual properties. They can keep churning out as many James Bond sequels* as they like.

And for MGM, this was a deal they simply couldn't pass up. The studio had already lost its way long ago and it was being shipped off to prospective investors who simply wanted to flip it and make an extra buck or two. Unfortunately, this didn't pan out well for the company. And while the current owners have tried to steady the ship a bit, everybody knew that the money was simply too good this time around, especially considering the impact Covid has had on traditional movie studios. So yeah, considering Amazon's ambition and how expensive it is to make or acquire content, ~$8.5 billion for a century's worth of movies and TV shows doesn't seem like a bad deal at all.

**By Vidyashree.V**

# Update for the day #1800 | Is the Japanese sun finally rising?

On 29 December 1989, the sun set on the Japanese stock market. The Nikkei index hit a high of 38,916. And then came crashing down. Anyone who had invested at the peak, believing in the advice "stocks go up in the long run", would still be cursing themselves. Because even after 30 years, the stock market has not breached that record.

But maybe, just maybe, the sun is finally rising again on the Japanese stock market. The Nikkei has risen by 20% this year. It's still below the peak but it has hit a 33-year high. And when Warren Buffett visited the country in April, he said he was quite 'proud' of the recent investments he'd made in Japanese stocks.

So, what's going on now? Well, most people think there are a few key reasons why investors are finally warming up to Japan. For starters, the US and Europe are facing a recession and the Japanese economy is growing pretty solidly. And while the US is hiking interest rates, the Bank of Japan is still sticking to its ultra-loose policy to push growth. Not to forget the Japanese Yen has weakened against the US dollar. And this will help Japanese companies that rely on exports. Their earnings will improve. On the face of it, these are all valid arguments as to why people are gung-ho about the Japanese stock market.

But… Maybe there is something else that most people are missing. We're talking about corporate governance! And we have to go back in time quickly to understand this. When the asset bubble burst in 1990, people had a rude shock. There was a lot of hanky panky going around in the Japanese corporate space back then. You see, when the Bank of Japan cut interest rates significantly to spur domestic growth, the idea worked too well. Banks opened up the credit tap with reckless abandon. And businesses threw caution to the winds and latched on to this easy credit.

They invested massively in factories, equipment, and office construction. A residential real estate boom also began. And when prices of land shot up, stock prices rose alongside it. Simply because companies had bought large tracts of land on their books too. And with rising share prices, they used that excuse to borrow even more money from banks. Banks obliged. And when finally in late 1989, the Bank of Japan started to raise interest rates to prevent the economy from overheating, everything collapsed—land prices, stock markets, and private company investments.

That is when people saw the unholy nexus in the corporate world.

Banks and big companies were in cahoots and that is why the money tap flowed freely. There was a lot of cross-holding in shares. For instance, a massive 70% of companies in the Nikkei had also invested in their direct competitors. It was a blatant conflict of interest. And no one cared about the minority shareholders. Companies with political connections also apparently struck secret deals to get cash. Undeserving people were sitting on the boards of companies. Also, Japan's top companies were ploughing money into the stock markets. Apparently, top brokers like Nomura and Daiwa promised to protect them against a stock market crash and helped to conceal losses too.

And when news of all this broke, so did the trust in the Japanese corporate system. Investors turned super cautious. So what's changing now, you ask?

Well, it's not really an overnight change if we're being honest. You know how people always talk about former Prime Minister Shinzo Abe's three arrow approach in 2012 to saving the economy? One arrow was about monetary policy—slashing interest rates to negative territory in a bid to push borrowing. The second arrow was fiscal—unloading money on infrastructure and stuff. But the third arrow was about structural reforms aka corporate governance. Abe introduced the Corporate Governance and Stewardship Codes

**By Roshan Bhandari**

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