

PLUS +

THE ROAD TO



THIS ISSUE

● COVER : THE ROAD TO E20

Dear Reader,

This month's cover story examines India's shift to E20 fuel, a policy designed to reduce oil imports, support farmers, and move the country toward a cleaner energy future. In this issue, we explore why mileage remains the defining concern for Indian motorists, what India can learn from Brazil's decades-long biofuel journey, and why experts believe India's mobility transition must embrace multiple clean technologies.

Beyond the cover story, we revisit the triumph of Spain's World Cup-winning team, not merely as champions, but as architects of a footballing philosophy. We reflect on *Satluj*, a film that reminds us that memory can be an act of resistance. Our history features uncover the colonial roots of two familiar names in India — Voltas and WIMCO — revealing how “neutral” European powers quietly prospered within imperial networks. We also explore how Mughal-era biographies preserved the intimate stories that formal histories often overlooked.

Technology, too, is undergoing its own transition. As artificial intelligence reshapes global supply chains, we examine why the next iPhone may become significantly more expensive and what that says about inflation, consumer aspirations, and the changing economics of innovation.

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Why mileage-conscious Indian motorists are resisting the **ethanol mandate**

by Anil Sasi

Maruti Suzuki's advertising catchline "*kitna deti hai*" and "*petrol khatam hi nahin hunda*" were instant hits, distilling the Indian motorist's obsession with fuel efficiency into a pithy catchline. The country's largest carmaker was hardly breaking new ground: decades earlier, Hero Honda had struck a similar chord with its "fill it, shut it, forget it" campaign, highlighting the efficiency of its four-stroke engines and buttressing the notion that thrift at the pump was the



ultimate measure of automotive value.

That sentiment has proved remarkably resilient, even as India's car market has upshifted to premium offerings with buyers looking to combine mobility with aspirational pursuits. Despite that, the calculus of mileage still remains a key hard sell and the promise of frugality continues to endure in a nation where mobility is expanding, but growth in disposable incomes remains patchy.

Ahead of schedule

That is where the government's new ethanol blending programme is playing spoilsport. Last year, India fully transitioned to 20% ethanol blending in petrol — five years ahead of the original target of 2030. E20 fuel — 80% petrol and 20% ethanol — is now the standard petrol variant available nationwide.

So, essentially, within three years, the average ethanol blending level in petrol doubled from the earlier 10% to 20% (this was originally slated to happen



over eight years). For older vehicles and those certified for E10 petrol — 90 parts petrol and 10 parts ethanol — this transition came about rather quickly, without sufficient warnings of the consumer-end pitfalls. The experience left motorists, especially those owning older cars and two-wheelers, feeling somewhat short-changed.

Now, there are three problems with using a higher ethanol blend in petrol for engines not designed for these blends:

One, there is a substantial drop in fuel economy depending on when the car was manufactured.

Second, filling E20 fuel in internal combustion engine (ICE) vehicles, especially older ones, could see some damage to parts owing to factors like corrosion, given ethanol's hygroscopic nature that promotes water uptake (hygroscopy refers to the property of a substance to attract and hold water molecules from the surrounding



environment, either through absorption or adsorption).

Third, vehicle owners in India currently do not have an option to choose different fuels at the petrol pump, unlike their counterparts in Brazil, where customers are presented with a choice of fuels with differential pricing, and under Brazilian law, there has to be a pricing discount for higher ethanol blends.

Indian vehicle owners did not receive blended fuel at a cheaper cost. But this comes at the cost of lower mileage and worries about damage in older vehicles — a cost that is forced down the throat of the motorists. Also, regular ICE cars running on higher ethanol blends, alongside the drop in mileage, are harder to start on winter mornings because ethanol burns at a higher temperature than petrol.

While a fuel with 10 per cent ethanol (E10) made little difference to a car's performance, anything above that is said to impact operations. And the



worsening of the performance does not exactly progress in a linear fashion as the blending levels keep increasing. The government has a plan to go further up from E20, and that is worrying customers, given their experience with the E10 to E20 transition.

The chemistry issue

So, what really is the core problem? Chemically, the proposition of ethanol blending doesn't appear to be so bad. Ethanol is what is called a carbon chain two, that is C_2H_5OH , whereas petrol being used at the pumps is somewhere much higher in the range in terms of the carbon content, from between C_8 and C_{12} . So, for every molecule of petrol burnt versus every molecule of ethanol burnt, the carbon dioxide levels will necessarily be lower as the ethanol blend increases.

Secondly, ethanol also has a very high octane number, so it can result in a cleaner burn inside an internal combustion engine than pure petrol.



It is a fact that ethanol's exceptionally high-octane number (approximately 108 RON, or Research Octane Number) has made it a preferred fuel component for high-performance ICEs.

Ethanol and ethanol-based fuels have historically been used in sports cars because of their superior anti-knock characteristics, better power potential and cooling effect stemming from their high latent heat of vaporisation. Most turbocharged and high-compression engines worldwide do rely on ethanol blends to realise higher performance, while simultaneously reducing emissions.

Multiple carmakers in India told The Indian Express that, given the higher RON, they can now begin working on engines with higher compression ratios to extract the maximum mileage out of higher ethanol blends. But that is all for the future. On its part, the government continues to maintain that the roll-out of higher ethanol-petrol blends will only be done after proper testing and

consultations.

Also, it is the United Progressive Alliance government (2004-14) that had originally notified in its first National Policy on Biofuels in 2009 an indicative target of 20% ethanol blending in petrol by 2017, which got pushed back for a number of reasons. Also, a scientific study on *Assessing the effect of E10 on the existing vehicles* was undertaken in 2009-10, by Indian Oil, Pune-based Automotive Research Association of India (ARAI), and industry lobby group SIAM, which suggested that the shift was operationally feasible.

But ethanol has a lower calorific value than petrol, which means something like 30% less mileage. The mileage issue continues to be a headache for motorists, especially as the government progresses to blends higher than E20.

Then there is the concern over vehicular part damage in older cars owing to factors like corrosion, in light of ethanol's hygroscopic nature, but much



of that seems to be overblown. A top carmaker had initially planned to launch a kit in the market for older cars to effectively refurbish vulnerable rubber and plastic parts and prevent material damage, but that plan now, at least for the record, seems to have been put off and is “only being done for internal testing and R&D purposes”.

There are, however, multiple claims by vehicle owners of fuel pump issues and other problems. On its part, the government contends that most clips doing the rounds claiming engine damage “appear to rely on unverified claims, selective presentation of facts and click-bait headlines designed primarily to generate online viewership”.

Material damage

While the E20 introduction was clearly rushed, given that the deadline was actually advanced by this administration, the government did depute the ARAI to conduct a study on the impact of E20 fuel on the materials



used in fuel-system components. An evaluation of 8 metals, 6 elastomers, and 4 plastics used in various fuel-system components was conducted through “systematic exercise of laboratory immersion,” and the study was conducted with E20 as test fuel and commercial petrol (Bharat Stage IV emission standards) as a baseline fuel (E10) for comparative assessment.

Impact of E20 on metals was evaluated through calculation of corrosion rates in mm/year based on data obtained for the change in mass post-immersion in fuels, an official said. Also, the impact of elastomers and plastics was evaluated through observed changes in properties like mass, volume, tensile strength, elongation, impact strength, and hardness.

The ARAI study concluded that the impact of E20 on metals tested “was found to be insignificant based on the corrosion rates”, with polychloroprene and fluoroelastomer found to perform “similar or better in most of the



properties with E20,” and the impact of E20 on “tensile strength and volume change properties” was found to be more than commercial petrol.

Now, ARAI is a government body, and some of its predictions, including the fuel efficiency ratings that it offers “under standard test conditions”, are vastly different in real-life driving conditions.

As far as vehicle degradation goes, manufacturers, on record, say they have not encountered any major issues with the E20 transition. Privately, though, they admit to this being a concern when the blending levels increase further, particularly for older cars and two-wheelers. Plus, the knock on fuel economy is absolutely real. And as fuel blends increase, this is only going to get worse.

There is a plan to go up from E20 to E25. Alongside that, there is a plan to introduce E85 fuel for flex-fuel vehicles. Even in a flex fuel vehicle, which is



equipped to have higher ethanol blends, it's cheaper to run the standard E20 fuel than the proposed E85 because the difference between the price of the fuel normally and in the higher blend has to be more than the fuel efficiency loss of over 25%.

To start with, E85 fuel will likely cost about Rs 20 per litre less than E20 petrol. In Brazil, this switch is only viable when the E85 becomes at least 30% cheaper. That choice has to be made available with a pricing differential for Indian consumers if E85 has to take off.

In private, vehicle makers also confide that the impact could be higher from E20 to E25 than it was for E10 to E20. This is especially true for older engines and the ones used on two-wheelers, where high-grade aluminum or steel casts are not used for the engine block. A senior technical expert at a major automaker told The Indian Express that there are no conclusive studies into the long-term impact blended fuel can have on non-compliant vehicles, but flagged



that it could definitely have an impact on the engine's life, its various rubber parts, valves, and piston heads, among others.

It is the E25 transition that has hassled automakers at the moment, since this will require additional engineering and validation work around engine calibration, fuel-system durability, corrosion resistance, and material compatibility. And homologation — the process that officially certifies a vehicle or component as compliant with regulations pertaining to safety, environment, and road-worthiness — at the end.

Consumer bears the brunt

This is just months after the government wrapped up the E20 transition. In all probability, the cost of vehicles will go up, too, and the consumer will have to bear it. Not to mention the lower mileage, which a lot of customers are clearly testifying to after the E10 to E20 shift. According to sources in



the government, the move towards blends higher than E20 is “not being pushed through in a hurry, and there will be enough time given for vehicles and oil companies to gear up for this transition”.

Why is the government pushing for blends beyond E20? The main reason is the government’s resolve to further lower India’s dependence on fuel imports and aid domestic ethanol production amid rising fuel prices due to tensions in West Asia.

There’s a political angle too: the agricultural lobby, especially from Maharashtra and Uttar Pradesh, is pushing hard for ethanol blends to be hiked since farmers such as those growing sugarcane are sitting on significant overcapacity. For the oil marketing companies, such as Indian Oil and Bharat Petroleum, too, there are challenges, but given the fact that they are mostly state-owned, they are unlikely to protest.



Now for adapting the existing set of vehicles to E25, car makers said they would have to run fresh tests to see what impact the higher ethanol blend would have on the older vehicles on the roads. As far as the new vehicles that will be sold, the manufacturers will have to recalibrate and redo the certification and homologation for emissions, because all the vehicles that are being sold now have been tested, certified, and homologated for emissions using E20. Homologation has to be done with the new E25 fuel, as it was done with E20 earlier. Then, of course, there is the looming question: the impact on mileage. The problem here is that the brunt of the drop in fuel efficiency from the E10 to E20 transition was borne by the motorist.

“In case of this new transition, too, the consumer will likely end up bearing the brunt of any drop in fuel efficiency. For older vehicles, there is the added question over vehicle damage due to the high ethanol mix. That too is left to the consumer,” a representative of an auto



manufacturing association said.

The Brazilian template

A decades-long push for blended fuel in Brazil may have a template for how India could move forward. Brazil's widespread use of flex-fuel vehicles is a story of strong government mandates, visible price incentives for consumers, clear guidance to carmakers, and robust consumer education that helped mainstream higher ethanol blends like E20 and above. The real question is whether India can learn from these strategies to boost E20 acceptance and effectiveness.

Over the past five decades, Brazil has worked to create a viable alternative to petrol by using more sugarcane-based fuels in the mix. Brazil's ethanol programme, which kicked off in the 1970s, was in response to the uncertainties of the oil market.

At nearly every petrol pump in Brazil now, people have an option to choose



between blended petrol, which typically includes 27-35% ethanol, and E100, which is pure hydrous ethanol.

Alongside that, Brazilians also got carmakers to usher in flex-fuel cars, thereby enabling the consumer to fill up with whichever option is cheaper at the pump on a particular day — often E100 is cheaper by 25-35% compared with lower blended petrol.

The flex-fuel cars were a big hit with Brazilian consumers, largely because government price support made the blended fuel cheaper than petrol at the pump. Ethanol also improves acceleration, an advantage in a country where Formula One racing is a national obsession. By the late 1980s, nine out of every 10 new cars sold in Brazil were capable of running on ethanol alone.

When Brazilians drive to a fuel pump to tank up, they get a choice of fuel mixes at different price points. In India, that is far from the case.



For India, Brazil's masterclass in **biofuel adoption**

by Anil Sasi

In the mid-1970s, faced with surging oil import bills and an imploding global sugar market, Brazil made a bold bet: it would run its cars on alcohol. Half a century later, this Brazilian push to ramp up ethanol use in its auto fuel mix is now a masterclass in biofuel adoption.

There are perhaps three key enabling factors that have made this a success: a graded, spaced-out approach to fuel blending with predefined milestones; the vehicular ecosystem being given enough time to adapt to this transition



in tandem with clear communication guidance to motorists; and offering the power of choice and visible price incentives for consumers to shift to ethanol that is now enshrined in a national law.

In India's rushed and increasingly bumbling efforts to dovetail ethanol into its fuel mix, all three established Brazilian learnings have been flouted.

Context for adoption, then and now

Let's consider the timing aspect. In response to the 1973 global oil crisis, the Brazilian government launched the National Alcohol Program (Proálcool) in 1975 to reduce petroleum dependence by promoting ethanol additives.

But its first ethanol blending law, Brazil's legislation requiring a 5% blend of anhydrous ethanol into petrol, goes all the way back to 1931. This decades-long arc culminated in the 2024 passage of the Fuel of the Future and Mover



Program legislation to heavily boost low-carbon vehicle technologies and biofuel adoption, with E30 petrol blend mandated in 2025.

BRAZIL'S ETHANOL JOURNEY



1931 FIRST ETHANOL BLENDING LAW

Brazil mandates its first legislation requiring a 5% blend of anhydrous ethanol into gasoline.



1979 FIRST ETHANOL- POWERED CAR

Fiat launches the 147, the world's first vehicle powered entirely by ethanol. Volkswagen, GM, and Ford quickly follow suit amid the second global oil crisis.



2017–2019 RENOVABIO & HYBRID FLEX CARS

2017: The National Biofuels Policy (RenovaBio) is passed, creating a market for Decarbonization Credits (CBios).

2019: Toyota launches the world's first hybrid flex-fuel vehicle (Corolla model).



2025 E30 GASOLINE BLEND

Following technical studies by the Ministry of Mines and Energy (MME), Brazil officially increases the mandatory anhydrous ethanol blend in gasoline from 27% to 30%.



1975 LAUNCH OF 'PROÁLCOOL'

In response to the 1973 global oil crisis, the Brazilian government launched the National Alcohol Program (Proálcool) to reduce petroleum dependence by promoting ethanol additives.



2003 FLEX-FUEL VEHICLES DEBUT

Flex-fuel vehicles hit the Brazilian market, enabling cars to run on petrol, ethanol, or any combination of the two.



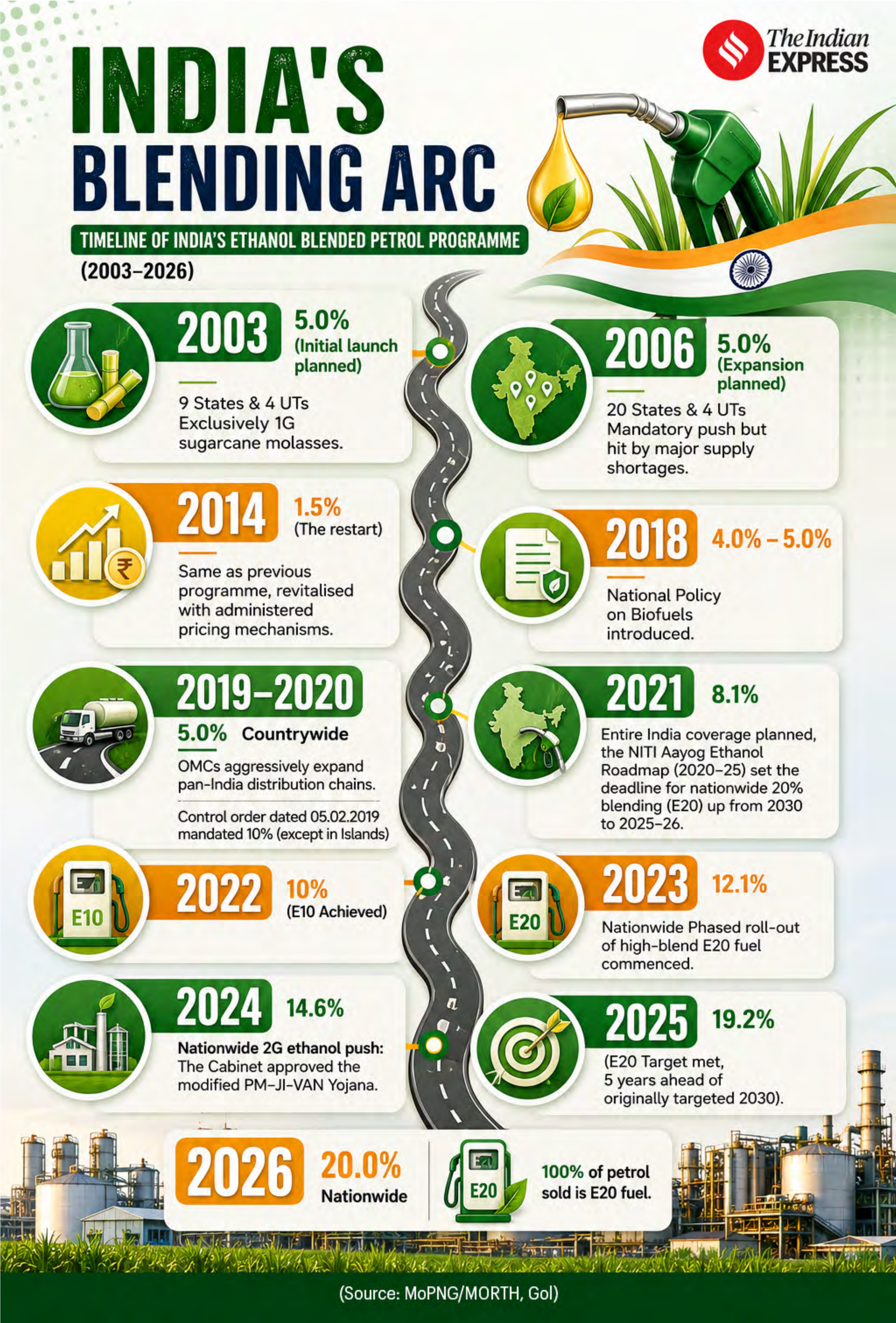
2024 FUEL OF THE FUTURE & MOVER PROGRAM

Passing of the Fuel of the Future and Mover Program legislations to heavily boost low-carbon vehicle technologies and biofuel adoption.

Source: Brazilian Sugarcane and Bioenergy Industry Association or UNICA



In comparison, the timeline of India's ethanol-blended petrol programme technically spans 2003 to 2026, but even in that, much of the action is front-loaded. It was only in 2022 that 10% ethanol blending was achieved, with a rapid increase to 20% in just three years.



The government had originally planned to dispense petrol blended with 20% ethanol only by 2030, but the E20 fuel is now the standard petrol variant available nationwide. Since then, there has been a move to shift to E25 as the base fuel, with a simultaneous push for E85-100 fuels for specialised flex-fuel vehicles (FFVs).

FFVs are essentially internal combustion engine vehicles engineered to operate on more than one type of fuel — typically petrol blended with ethanol or methanol. These vehicles use a fuel composition sensor to automatically adjust fuel injection and ignition timing based on the blend in the tank, allowing seamless switching between petrol and ethanol and varying degrees of blends.

Getting the infra ready

On the second aspect of readying the vehicular ecosystem, too, big differences emerge. Brazil started early with its policy to promote FFVs, and the vehicles have been running for over two



decades, seen as a solution for driving the country's transition to a cleaner mobility model.

It was way back in 1979 that Italian auto major Fiat launched the 147, the world's first vehicle powered entirely by ethanol in Brazil. Volkswagen, GM, and Ford quickly followed suit amid the then global oil crisis. That tempo was lost as oil prices fell. The Brazilian auto industry subsequently started producing FFVs at scale from early 2003, when ethanol suddenly seemed economically viable again.

On March 23 that year, Volkswagen introduced the first flex-fuel vehicle to the Brazilian market, and other companies — including General Motors and Ford — eventually followed suit, according to data from consultancy Argus.

Toyota brought in its Corolla Flex. FFVs went from selling just 48,178 units in 2003, or under 4% of total light motor vehicle demand, to 1.63 million vehicles

last year, or nearly 90% of the Brazilian car fleet. The domestic car industry also reached a milestone of having delivered 40 million flex-fuel vehicles as of February since 2003, according to Brazilian industry body Anfavea.

In India, even as E85 fuel dispensing stations are being established nationwide, only a few vehicle prototypes are in the works.

While the flex fuel setup entails an entirely separate vehicle category and a range of fresh vehicle readiness certifications, as of now, India has only a handful of cars in the category: the newly launched WagonR flex fuel model and the Toyota Hycross hybrid flex fuel prototype, the Tata Punch and Hyundai Creta flex fuel versions, alongside some two-wheeler makers, including Hero and TVS. Most cars and two-wheelers on Indian roads are not geared up for handling higher blends of ethanol in the fuel mix.



Choice for commuters

Over the past five decades, Brazil has also worked hard to give the power of choice to its motorists. At nearly every petrol pump in Brazil now, people have an option to choose between blended petrol, which typically includes E27 ethanol, and E100, which is pure hydrous ethanol. Alongside that, since Brazilians got carmakers to switch to FFVs, consumers can fill up with whichever option is cheaper at the pump on a particular day. Often, E100 is cheaper by 25-35% compared to lower blended petrol.

The flex fuel cars were a big hit with Brazilian consumers, largely because government price support made the blended fuel cheaper than petrol. Ethanol also improves acceleration and reduces knocking, an advantage in a country where Formula One racing is a national obsession. By the late 1980s, nine out of every 10 new cars sold in Brazil were capable of running on

ethanol alone.

In India, that is far from the case. Motorists here were told that performance would not be affected. But the definition of performance did not include mileage. That has come back to bite the decision-makers, as vehicle owners noticed a sharp dip in fuel efficiency, with the promise of more efficiency loss as blending increases. Concerns over vehicle damage appear somewhat exaggerated, though there are concerns about plastic and rubber parts getting degraded in older vehicles.

All the while, Brazil was focusing on blended fuel and ethanol, implementing policies in a phased manner to ensure that people who had bought vehicles earlier did not feel at a disadvantage in terms of harm to their vehicles.

Questions for India

In India, the push to progressively raise ethanol blending in petrol from the current E20 level to E25, before



transitioning towards flex-fuel vehicles and E85-E100 fuels, is an integral part of the strategy to reduce dependence on imported fossil fuels.

According to an official, “India’s future mobility ecosystem will combine EVs, biofuels, hydrogen, and renewables in a manner suited to Indian realities”. India currently imports nearly 88.5% of its crude oil requirement, making the economy and energy security vulnerable to geopolitical disruptions. But the rushed manner in which it has happened, without adequate disclaimers or preparation, raises serious questions.

Brazil’s story may have a template for how India could move forward. Its widespread use of flex-fuel vehicles is a story of strong government mandates, visible price incentives for consumers, clear guidance to car makers, and robust consumer education that helped mainstream higher ethanol blends like E20 and above. For India, this offers a ready template.



What India's **clean mobility transition** needs

by Sandeep Singh

As India is witnessing a transition in mobility, both on account of different energy powertrains and ethanol blend of petrol, Vikram Gulati, country head and EVP, Toyota Kirloskar Motors, told Sandeep Singh that all cleaner technologies need to be supported to help reduce carbon emissions, bring down pollution, and reduce dependence on imported energy.

Amid growing concerns over the impact of ethanol blend on fuel efficiency, he said that the studies showed that the



shift from E10 to E20 had a negligible material impact and the impact on fuel efficiency was in the range of around 3-5%. He, however, said that for E25, new and older vehicles need to be evaluated before making that transition.

He also called for greater policy support for hybrids for faster displacement of petrol and diesel cars. Edited excerpts:

Where do you see EVs, Hybrids, ethanol-based flex-fuels fitting in the country's mobility transition?

If you look at India's priorities from a macro perspective, the objectives are very clear — reduce fossil fuel consumption, reduce carbon emissions, bring down pollution, increase domestic value addition, and reduce dependence on imported energy.

I think at this stage, it makes sense to support all cleaner technologies. It is not EV versus hybrid — it is EVs and hybrids. Along with that, we need



flex fuels, CNG, compressed biogas, hydrogen, and other solutions working together. The task is so huge that even if all these technologies grow, there will still be a gap, and fossil fuels will continue to remain part of the system.

Anyone who wants to buy an EV will buy an EV. A hybrid is not going to distract that customer. But someone who is considering buying a petrol or diesel vehicle may think twice if a hybrid gives them the right total cost of ownership. So every hybrid sold is actually replacing a petrol or diesel vehicle. That helps the country, the city, and the environment. Policy should ensure that the customer is not inadvertently taxed more for choosing such a clean technology.

Ethanol, on the other hand, is extremely relevant for India as it is a domestic energy source, it supports the agricultural economy, helps reduce the amount of fossil fuel we consume, and is the fastest as well as cheapest way to decarbonize road mobility.

India's energy challenge is huge. There have been forecasts indicating that a significant part of the increase in global fossil fuel demand over the coming years will come from India because of economic growth and the increasing number of vehicles. The only way to address this is by improving efficiency and encouraging energy substitution through both electricity and ethanol.

Do you think this is the right time to accelerate the ethanol roadmap?

Definitely. If you look at the ethanol industry, there is significant available capacity today. The industry has been highlighting that plants are operating below their potential, and there is enough opportunity to scale up ethanol production. This can help India reduce petrol consumption and fossil fuel dependence. This is the right time to move in that direction.

Brazil's experience is very important. Initially, after the oil crisis, they pushed



ethanol-only vehicles. But customer adoption had limitations because people wanted flexibility. The major change happened when flex-fuel vehicles (FFVs) were introduced. FFVs were promoted by the government through enabling policies that encouraged rapid customer adoption. Once customers had the ability to use different ethanol blends depending on availability and economics, ethanol adoption increased sharply. That is the real learning — make the FFV technology customer-friendly, affordable to buy and run.

India has a strong opportunity. If policies create economic value for customers — both while buying flex-fuel vehicles and while using ethanol fuel — adoption can grow very quickly. For manufacturers also, scale matters. If volumes increase, engine supply chains can be developed for flex-fuel technology at a larger scale, which will help bring costs down.

The important point is that the transition has to be designed properly,



and the customer has to accept it. The technology, policy, and economics all have to work together, and there has to be value for the customer.

There are concerns around higher ethanol blends and their impact on fuel efficiency and engines. How do you see that?

We need to clearly differentiate between different blends. E85 is meant only for flex-fuel vehicles that are specifically designed for flexibly using any higher ethanol content. There was also some discussion on moving existing vehicles beyond E20, for example, towards E25. That requires careful evaluation. The issue is not that it cannot be done, but requires adequate testing to be completed and evaluated as was done earlier for E20.

When India moved from E10 to E20, a lot of studies were conducted. Older vehicles from different manufacturers were tested. Material compatibility,

component deterioration, and fuel efficiency impact were evaluated. The conclusion was that there was a very negligible material impact. Fuel efficiency impact was minimal and estimated in the range of around 3-5%. Therefore, the concerns being seen on social media recently are not backed by scientific facts and sound technical evaluation.

But for E25, similar extensive testing has not yet happened. New vehicles and older vehicles need to be evaluated before making that transition. Testing will provide the answer. However, we feel that FFV provides agility and is the optimal way ahead.

EVs are witnessing a rise in demand. What are the challenges for EVs?

EVs are absolutely required. It is a good technology going forward. EVs must be encouraged, and the lower GST incentive and charging infrastructure support are aimed at helping consumers adopt EVs.



But consumers will buy EVs only when it becomes an economically rational and convenient choice for them. The bigger challenge with EVs is localisation of value add and reducing raw material dependence. That has to be solved to make the transition sustainable.

Hybrid vehicles have also witnessed strong demand over the last year. What has changed?

I think hybrid as a technology is being accepted very well by consumers now, as they are understanding the practicality and relevance of this powertrain. At this point in time, hybrids make a lot of sense. Recently, during a discussion around Environment Day, there was a lot of focus on different technologies — EVs, flex fuels, isobutanol experiments, hydrogen, and others. But one important point that also came up was the need for vehicles that can deliver a drastic improvement in fuel efficiency. That is where hybrids become extremely relevant. Being a technology that



delivers nationally important outcomes, it also needs to be further supported by policy for faster displacement of petrol and diesel cars.

Are you saying hybrids need greater policy support?

Yes, they need to be supported more. Certified data shows hybrids can deliver around 40-50% improvement in fuel efficiency. For a city like Delhi, where there is congestion and a lot of low-speed driving, hybrids make even more sense, as in city driving conditions, when conventional petrol or diesel vehicles are at their worst — during idling and crawling — hybrids perform very efficiently because they operate in EV mode. A hybrid vehicle can practically run nearly 60% of the time in EV mode with the engine switched off. It does not require external charging infrastructure, uses a very small battery — around 1-2 kWh compared to much larger batteries in EVs — and still delivers significant benefits in the areas we want to address.



Spain didn't just win the World Cup. They made an argument for greatness

by Sandip G

With his headmaster-like demeanour, Spain's manager Luis de la Fuente waited patiently to lay his hands on the most prized sporting trophy in the world. He was in no haste, perhaps because he knew the trophy would be his and the wondrous band he has assembled would remain in contention for the next four years; perhaps he is fascinated more by the journey than the destination, or maybe he knows his team is not yet finished piling trophies onto the federation's mantelpiece.

He, and the whole world, could see the tidings of a footballing dynasty that could rule the world for the next decade. The second Spanish dynasty of the century, and as artful and delightful as the previous iteration, the tiki-takians.

The route to the crown was flawless, steadily raising their tempo from a goalless draw against Cabo Verde to the remorseless annihilation of a magnificent France to gently dismembering the fight and bravado of Argentina, the defending champions, the men of moments. In the post-match presentation, de la Fuente stressed on “being faithful to our idea of football” without ever directly detailing what that idea was. There is no clearly defined or perceptible ideology here, the way there was with tiki-taka during their reign. Perhaps their idea is amorphous, too broad to pin down to a specific act.

But their leitmotif is clear: to minimise the variables of knockout football and make themselves near-unbeatable, to wrap themselves in invincibility. To

entirely suck the risk out of the game, not by refraining from attacking football and parking the bus, but by ensuring that everything is in order, the shape and structure, the creaks and crumples covered, like a freshly ironed suit.



*Spain's leitmotiff was clear: To entirely suck the risk out of the game, not by refraining from attacking football and parking the bus, but by ensuring that everything is in order.
(AP Photo)*

To kill teams softly, to marinate them on a slow fire, draining their hope drip by drip. It's the most brutal murder, because they concede no chance of survival. They have not produced thrillers, because their game is fine-tuned to such precision that they avoid wild fluctuations. They have never been in a crisis, because their vision is not to

wait for one but to avoid it altogether, through dynamism in pressing and clarity in thinking, passing and positioning.

If their backline is impenetrable, the midfield is unbreakable, and the forward line uncontrollable when in full flow. The level of sustained concentration required to defend against them, attack them, or overpower their midfield is almost indecent. Their defence wore down Cristiano Ronaldo, Kevin De Bruyne, Kylian Mbappe, Michael Olise and Lionel Messi. Only once has their backline been breached in the whole tournament. Only 43 shots have been attempted against them. The midfield outclassed all and sundry; the pack of forwards took turns to strike. Goals sprung from everywhere, they had seven different goalscorers. Every match had a different hero, yet there is little arrogance or ego. They can't be conquered mentally, physically or tactically.

A flimsy argument could be raised that

they don't thrill, that their game is bereft of flourishes, more opera than heavy metal, even with a spirit as blithe as Yamal's. The truth is they are so evolved that they need no theatrical embellishment or showmanship to assert their supremacy. They will be celebrated as a team that engaged the brain more than the soul, a connoisseur's delight rather than a layman's.



Spain's Pau Cubarsi heads the ball as Argentina's Valentin Barco (8) defends during the World Cup final. (AP Photo/Yuki Iwamura)

Watch closer, and there is a contained beauty in every stride they take. The

half-turns of Dani Olmo, the torqued first touches of Yamal, the gorgeous pass-reading of Pau Cubarsi, the svelte, slick passing patterns, their graceful control of emotions, the surreal serenity in times of crisis (if at all they face one), the geometric passing style has a Euclidean mastery to it.

There could have been more entertaining teams, more romantic ones. But maybe not a more perfect one. As perfect as the tiki-taka era, when they collected three trophies in four years. De la Fuente's group could match that, even surpass it, and transform into a footballing dynasty. The nucleus is still young, the average age is 26.2. The two most important cogs in the title triumph were 19-year-olds, Yamal and Cubarsi. They could rule football for a decade, with more talent still to spring from the vibrant youth academies of Barcelona, Atletico, Villarreal and Real Madrid (even though there was no Madrid player in the squad).

If the 2008-12 vintage, the team that

post-modernised the game, had two pass-masters of virtuosic grandeur in Xavi Hernandez and Andres Iniesta, de la Fuente's batch had the irresistible Rodri, the team's ticking heartbeat. His stifling of Messi was a defensive masterclass. Messi turned him once early on, but thereafter Rodri pushed him into an airless chamber, suffocating him like a boa constrictor, tightening his grip over the greatest player ever and making it harder and harder for him to breathe. If Xavi and co. were pass-masters, Rodri and friends are space-masters. He is a role model in his words as much as his deeds. "I just want the new generations to see my example as an opportunity – when you go down you can rise again. This is my philosophy my entire life," he said after the game. His advice to his players was simple: "We need to face them. We have to look into their eyes and see it. We win this game, and then life gives you the World Cup, or not."

In every sense, they could make a compelling case to be one of the



greatest teams ever. The debates will no doubt escalate. The Brazil of 1970 is the romantic ideal. Or the French dazzlers led by Zinedine Zidane. Or Spain's own golden generation. De la Fuente's men belong rightly in that pantheon of greats, for the graceful efficiency with which they minimised the variables of knockout football and made themselves near-unbeatable. And their era is far from nearing its end.



In Satluj, the state writes the obituary, but the river remembers the truth

by Anas Arif

Exactly at the 30-minute mark in *Satluj*, power sheds all disguise and begins to speak in the language of routine. An arrogant police officer walks into a government hospital with the ease of a man who believes institutions exist to obey him. He enters a doctor's cabin, settles into a chair, meets her gaze, and says, "Two dead bodies. Killed in a police encounter. Need their post-mortem reports in 20 minutes." The horror lies in how ordinary the demand sounds.

A second later, a young doctor rushes in, shaken. The officer grabs him by the collar. “What happened?” “There is only one dead body,” he stammers. “One is alive.” The doctors rush towards the stretcher. A woman lies soaked in blood, her clothes almost indistinguishable from the dark stain beneath her. She opens her eyes with great difficulty. Somewhere between death and survival, a faint pulse refuses to surrender. The doctor orders the operating theatre to be prepared. The officer intervenes, drives the woman back to the place where her obituary had already been written, turns fiction into fact with another shot, and returns her to the hospital. “There you go, madam,” he says with chilling composure. “Now both are dead.”

It is haunting. It is terrifying. It is Shakespearean. *Satluj* is a film that mourns before it accuses. Long delayed and once titled Panjab 95, Honey Trehan’s film is to Punjab what Haider was to Kashmir. The influence of Vishal Bhardwaj (whom Trehan considers a mentor) runs through its veins. Both



films are haunted by the same grief: about those who disappear in broad daylight, and those who are left to search for them long after night has fallen. Both are about lands where blood has flowed more freely than rivers, where water has become an archive of the dead.

They are stories of landscapes where rivers remember what official records refuse to. Say, like in one moment, a corpse rises from the river, drenched and bruised, to complain that its wounds grow unbearably cold beneath the water at night. Perhaps that is why *Satluj* is the only title this film could have had. Water is everywhere. It reflects faces in the stillness of a gurdwara. It receives bodies thrown into canals. But the same waters eventually vomit back what they have been forced to carry. A man who has spent years drowning his conscience finally allows it to surface. After all, the river, having witnessed every crime in silence, remains the only place where truth can still rise.



Truth is what *Satluj* searches for. It pursues it, safeguards it, and insists upon it. Much like its protagonist, Jaswant Singh Khaira (Diljit Dosanjh), who devoted his life to documenting extrajudicial killings and fighting for those who had disappeared in broad daylight, leaving behind families condemned to live without answers. It is perhaps through this pursuit of truth that the film's screenplay (co-written by Niren Bhatt, Utsav Maitra, and Trehan) reveals its most fascinating design. So, at the very centre of it, *Satluj* is the story of three men, each inheriting the burden of resisting an establishment that writes history by first erasing its witnesses. The first half belongs almost entirely to Jaswant.

We watch an ordinary bank manager slowly surrender the comforts of an ordinary life to become a human rights activist willing to risk everything in the service of justice. His journey unfolds with inevitability, each discovery pulling him deeper into the machinery of violence. There are a lot of parallels

with Haider here. Much like Haider Meer (Shahid Kapoor) wandering through morgues and graveyards in search of his missing father, Jaswant, too, walks among the dead with the hope that they may finally speak. But where madness eventually consumes Kapoor's Hamlet, *Satluj* imagines a different tragedy. Here, it is the system itself that abducts Jaswant.



A still from Satluj which was initially titled Punjab 95.

And so, as the second half begins, the film shifts its point of view. The burden of the story passes to Samudra Singh (Arjun Rampal). Even his name, Samudra, the sea, extends the film's enduring conversation with water. What begins as one man's fight becomes

another man's inheritance, the truth passing from one pair of hands to the next like a relay baton, refusing to disappear even when the men carrying it do. With the shift in point of view comes a shift in tone. The film no longer chases the truth.

Instead, it begins assembling it, piece by piece. Its anger gives way to observation, taking on the shape of a procedural, following Samudra as he investigates Jaswant's disappearance, only to uncover the larger conspiracy that had long been operating across Punjab. It is here that Trehan stages two of the film's finest scenes, both between Samudra and SSP Sugga (Suvinder Vicky, who can do no wrong). It is interesting to recall that Rampal and Vicky also shared two scenes earlier this year in Aditya Dhar's *Dhurandhar: The Revenge*. There, they were written to persuade. Here, they are written to contend.

Both exchanges unfold around the simple act of making tea. By the second encounter, it is Samudra who walks away

with the final word. Yet Samudra is never promised the victory of dismantling the system. The film understands that institutions built over decades do not collapse at the hands of a single righteous man. His task is not to end the darkness, only to carry the flame a little further. And so the screenplay turns to its third man. Kuljit (Jagjeet Sandhu) is the film's quietest, and perhaps its most important, point of view. A newly inducted constable, he is there from the very beginning, though almost invisibly so. The film opens with his initiation into violence, as his seniors coerce him into becoming complicit in a killing. From that moment onwards, he becomes what the river has always been in *Satluj*, a witness. He watches. He remembers. He laments. Like the *Satluj* itself, he is forced to hold what others are desperate to bury.

Only in the film's final moments does that burden become unbearable. Conscience finally rises to the surface. Kuljit chooses to speak. And perhaps that is what *Satluj* has been moving

towards all along. Truth may be born in the courage of a Jaswant and safeguarded by the conscience of a Samudra. But it changes and challenges the world only when it finds a Kuljit.

Kuljit is not simply a character. He is the film's appeal to everyone who has watched, remained silent, and looked away. After all, in the end, *Satluj* believes not in extraordinary men, but in ordinary consciences. It tears open the idea of a police state. It exposes a machinery that governs through extortion, disappearance, and unchecked power. A machinery that first kills, and then writes the story of why the killing was necessary. Many have wondered why a film like *Satluj* has been denied its rightful place for so long. The answer is relatively simple. They do not want another hero like Jaswant to rise from the minority. They fear a Samudra who refuses to stop asking questions. And, more necessarily, they are intimidated by a Kuljit who chooses to remember. For there is nothing a violent state fears more than a people who remember.



Switzerland's invisible empire in India: **The story behind Voltas**

by Adrija Roychowdhury

Every summer, millions of Indians switch on an air conditioner to escape the heat. Among the brands most closely associated with that ritual is Voltas. Yet the story behind one of India's best-known air-conditioning companies is not merely one of engineering or consumer comfort. It begins with a colonial belief that tropical climates shaped the character of those who lived in them — that heat made South Asians lazy, uncivilised, and unfit for self-government. Ironically, the company's history is closely intertwined

with a European country more often associated with neutrality than with empire: Switzerland.

Decades before Volkart Brothers joined hands with Tata Sons to create Voltas in 1954, the Swiss merchant house had established itself as one of South Asia's most influential trading firms. Founded in 1851 with offices in Winterthur near Zurich and in Bombay, Volkart would become one of the largest exporters of Indian raw cotton by the early twentieth century, surprising many contemporaries.

A member of the firm's senior staff in 1919 is known to have remarked, "and many an observer looks with amazement at the structure which took root in a landlocked provincial town in Switzerland 68 years ago and which could grow into a mighty tree despite... the attacks of better suited competitors" (as cited by historian Christof Dejung in *Cosmopolitan capitalists and colonial rule: The business structure and corporate culture of the Swiss merchant house*

Volkart Bros., 1850s–1960s, published in 2020).



Senior executives of Swiss cotton importer Volkart enjoyed a colonial lifestyle in Bombay. (Winterthur City Archives)

It was not, however, exceptional for a non-British, or rather a non-colonial, enterprise to compete successfully in British India. Much like the Swedish Match company, the Swiss Volkart Bros. entered the colonial economy as a private enterprise, benefiting from the structures and protections established by the major imperial powers. Recent research has put the spotlight on the ways in which Switzerland was involved in colonial practices without having any colonies, while successfully maintaining an image of neutrality.



As early as 1932, economist Richard Behrendt argued that Switzerland profited more from colonialism than the great European powers themselves, who were burdened with the cost of maintaining the empire.

Colonial Switzerland and the making of neutrality

At the height of European colonial expansion in the late nineteenth century, the Swiss parliament debated whether the country should acquire colonies of its own. The proposal was defeated because Switzerland's landlocked geography made the logistical demands of the empire difficult to sustain. Instead, the Swiss Republic left the search for profit in the colonies entirely to private initiative.

Thereafter, Swiss involvement in colonial enterprises came through piggybacking on the European powers — the British, the French, or the Dutch. In an interview with indianexpress.com, Harald Fischer-Tiné, Professor of



Modern Global History, noted that Swiss involvement in colonialism extended across several fields. The most important among them was economic exploitation. “Swiss firms would use the protection of other European colonial powers in South and Southeast Asia. There were many Swiss companies that earned an awful lot of money in the Philippines, Indonesia as well, using the imperial dividend of being white Europeans,” he says.

There was also massive participation by Swiss mercenaries in colonial enterprises. “At the infamous Battle of Plassey, there were several mercenaries involved from the German and French-speaking part of Switzerland,” says Fischer-Tiné.

Swiss military participation extended far beyond South Asia. Recent research has identified a much higher number (more than 8,000) of Swiss mercenaries who served in the Dutch colonial army in the East Indies between 1848 and 1914, contributing directly to the violent

expansion and maintenance of Dutch rule.

The third pillar of Swiss involvement in colonial enterprises was scientific collaboration. As Fischer-Tiné explains, “Many Swiss natural scientists, botanists, race scientists, and physical anthropologists would use imperial expeditions in Africa, the Pacific, and Southeast Asia to build a name and to develop their technologies. They were providing the tools of the trade for British, German, and French colonisers who were anthropologically measuring their population and so on.”

In many plantation colonies, the expertise of Swiss entomologists and botanists helped Dutch, British, and French plantations flourish.

The Swiss also benefited from their multilingualism, allowing them to conduct business across British, Dutch, and French colonial spheres without being closely identified with any single colonial power.

Despite these engagements, Switzerland cultivated the image of a country without a colonial past — an interpretation that Swiss historians have challenged in recent years.

The image of “neutrality,” says Fischer-Tiné, was a major piece of cultural capital that Switzerland has been selling since the late 19th century. Consequently, when supranational institutions such as the Red Cross and the League of Nations emerged, Switzerland successfully positioned itself as the ideal neutral venue for international conferences, negotiations and diplomatic gatherings. That image has endured into the present day, most recently with Switzerland hosting the US-Iran peace talks at Lake Lucerne in June 2026.

Colonial cotton trade in South Asia

It is in this context of colonialism without colonies that the Volkart Bros emerged.

Jonathan George Volkart, the younger of the two brothers, first travelled to India to work as a cotton purchasing agent at Wattenbach and Co. in Calcutta. His elder brother Solomon visited India in 1844 to assess trading opportunities. A few years later, the two established Volkart Brothers.

From their first trading house in Bombay, they rapidly expanded into offices in Colombo, Cochin, and Karachi. Many other branches followed with the expansion of the rail network and the opening of the Suez Canal in 1869.

While the Volkart business relied on colonial rule to a large extent, the British, too, gained handsome advantages from the arrangement, especially after the American Civil War in the 1860s. The “cotton famine” that followed the war halted the export of vast amounts of raw cotton from the Southern United States to the textile-producing regions of Europe, such as Lancashire.



In an effort to replace those cotton exports, the British turned to the cotton-producing regions of South Asia.

In an effort to replace those cotton exports, the British turned to the cotton-producing regions of South Asia. But the areas of cotton cultivation in India were removed by hundreds of miles from the sea ports, most importantly, Bombay. “And that’s where the Volkarts came in with Swiss experience of logistics, making sure that the cotton bales

would reach the harbour in the shortest amount of time,” says Fischer-Tiné.

Historian Christof Dejung, in his 2020 research paper *Cosmopolitan capitalists and colonial rule: The business structure and corporate culture of the Swiss merchant house Volkart Bros., 1850s–1960s*, explains that contrary to what British bureaucrats had hoped, the quality of Indian cotton was not acceptable in British markets. Consequently, only about three percent of Indian cotton was exported to Great Britain. “Instead, the majority of Indian raw cotton found ready markets in East Asia and Europe, the latter giving a Swiss firm like Volkart a competitive edge,” writes Dejung.

The Volkarts soon diversified into spices, coffee and coir yarn before expanding into engineering goods in the 1880s.

In 1923, Volkart established its first engineering division in Bombay, with departments for mechanical, electrical, milling, textile, agricultural, and

refrigeration work. Soon, it forayed into the incipient market for “comfort air conditioning.”

With stricter norms for foreign firms taking shape in the post-independence period, Volkart entered a partnership with Tata Sons in 1954 to create Voltas, today India’s largest air-conditioning company by market share.

Carrying the colonial mindset, leading a colonial life

Volkart’s expansion led to a steady increase in staff both in India and Europe. In 1860, the company employed only nine European staff in India; by 1951, that number had risen to 136.

Dejung writes that for the Swiss merchants, working in India “offered an opportunity to enjoy a certain colonial romanticism and to enjoy exotic adventures.” Solomon’s son-in-law, August F. Amman, who later became a partner in the firm and was stationed in India, wrote a memoir about his time

in the subcontinent, recounting hunts for tigers, crocodiles, and elephants, alongside unpleasant encounters with snakes and scorpions.



*Label used by the Volkart Brothers on their products to be sold in India
(Stadtarchiv Winterthur)*

At the same time, many complained about the rigours of the tropical climate, which they found physically taxing. This



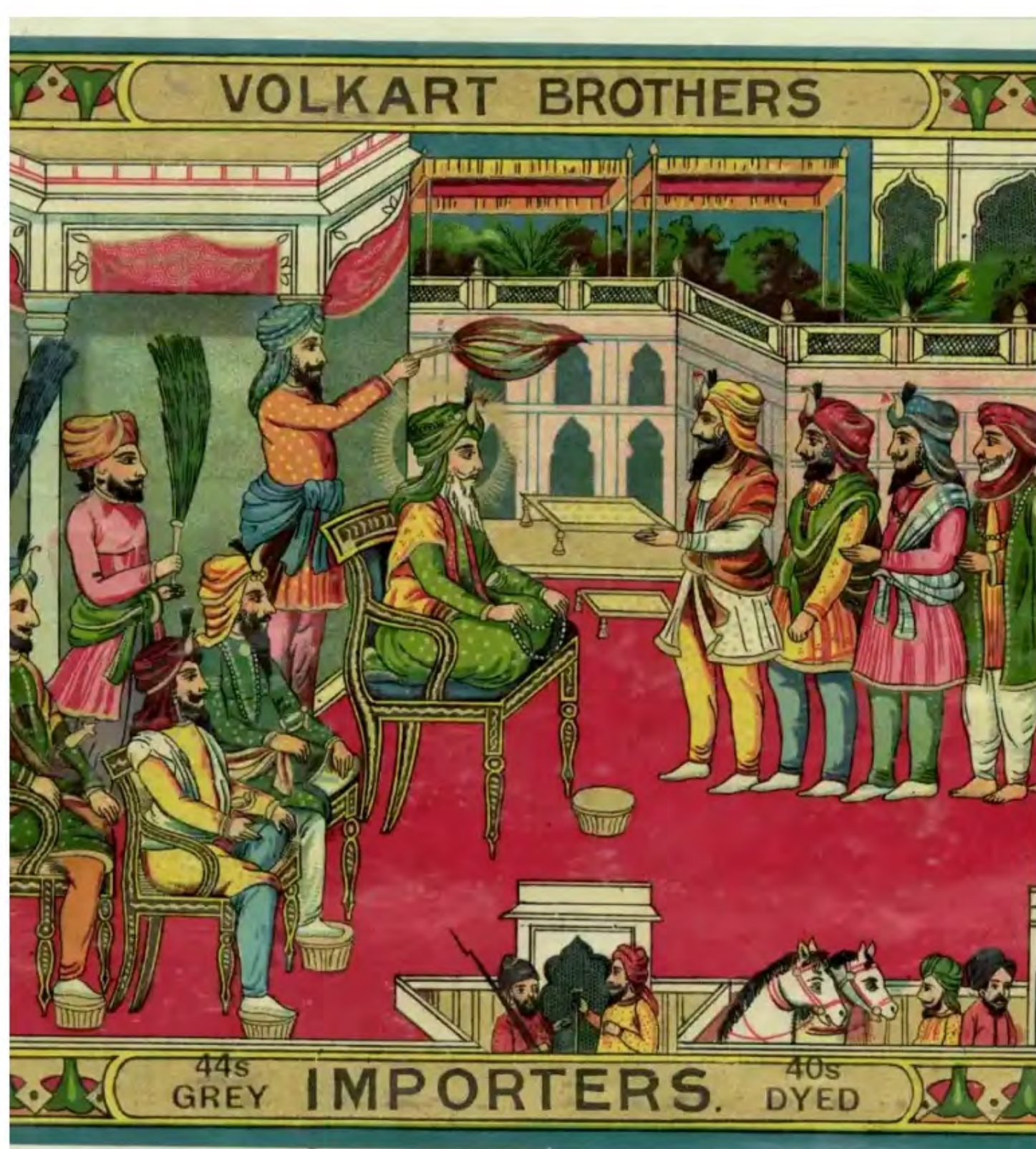
attitude towards the climate fed directly into the way Volkart marketed its air-conditioning business. Architectural historian Priya Jain, in her 2021 paper *Selling comfort: Volkart Brothers and the origins of air conditioning in India (1923–1954)*, notes that the Volkart archives reveal “that the promotion of air-conditioning in India by VB engineers and merchants extended discriminatory colonial views about race, climate, and civilisation.”

Volkart’s employees had a complicated relationship with the colonisation of the subcontinent. While they depended on infrastructure built by the imperial regime, they were also critical of colonial racism, which they considered detrimental to their business interests. At the same time, they maintained the fashion choices and lifestyle of their imperial counterparts, living in colonial bungalows and employing a large entourage of Indian servants and staff.

“This was largely motivated by colonial pretension — the desire to stand out

from the local population and never renounce the cultural symbolism of European clothing as an icon of civilisation, no matter how extreme the conditions,” writes Dejung.

To the nationalist awakening in the subcontinent during this period, too, Volkart’s employees reacted in contradictory ways. “They had their ears to the ground and were aware of what people were keen on,” says Fischer-Tiné. Much like the Swedish matchbox makers, the Volkart Bros. capitalised on the nationalist mood of the time, using patriotic or religious motifs on their packages of cotton thread to target local customers.



*Indian motifs used by Volkart Brothers on their packages of cotton thread
(Stadtarchiv Winterthur)*

They were, at the same time, extremely uneasy about political developments in India. Fischer-Tiné says the Swiss had some sympathy with ideas of political emancipation, stemming from a historical consciousness of fighting against Habsburg domination in the 14th century. On the other hand, correspondence between Volkart employees in Bombay and Winterthur shows that this sympathy did not extend to what they regarded as an “uncivilised and potentially anarchist Indian variety of national self-determination,” says Fischer-Tiné.

When the political tides shifted, the Volkarts once again turned to the identity of “neutrality” to maintain their commercial presence. Dejung illustrates this point in his paper, noting that despite maintaining a Swiss identity, the Volkarts employed many Germans. During the World Wars, when German employees were interned, the survival of the firm depended on convincing the British that it belonged to “neutral” Switzerland.



It was a convenient reflex, and not a new one. Volkart's neutrality did not place it outside the colonial world; rather, it often enabled Swiss businesses to move comfortably within it.

The air conditioner switched on in an Indian home today carries no simple or direct imprint of colonial rule. Yet the business genealogy behind it leads back to a Swiss merchant house that moved Indian cotton through imperial markets, lived within colonial hierarchies, sold mechanical comfort through racialised ideas of climate, and finally reconstituted itself through partnership with Indian capital after independence.



How a **Swedish match company** shaped colonial India

by Eleonor Marcussen and Niladri Chatterjee

Imagine a bustling Calcutta street corner in the 1920s. The air is thick with humidity and the fervour of political resistance. A young nationalist volunteer urges passers-by to boycott British goods in the name of the Swadeshi movement. Reaching into his pocket to light a lantern, he pulls out a matchbox bearing the image of Bharat Mata, or a charkha, or even Mahatma Gandhi. It looks unmistakably Indian. It feels patriotic. Yet there is a profound irony concealed within that box of safety matches. It was likely

neither made by an Indian cottage industry nor manufactured in Britain. Instead, it came from a corporate giant headquartered in the small Swedish town of Jönköping, carrying the iconography of Indian nationalism through circuits of foreign trade and industrial manufacture.

That irony is where this story begins.



Jönköping Matchstick Factory, 1910. (Wikimedia Commons)

Matches were humble objects, used for cooking, smoking, worship, and domestic labour. But precisely because they were cheap, ubiquitous, and constantly handled, they offer an unusual entry point into the political economy of everyday life. A matchbox passed through bazaars, factories, dockyards, and households. It also crossed imperial frontiers. To follow the journey of a matchstick, therefore,



is to uncover a much larger history of capital, technology, visual culture, and nationalism.

Beyond the imperial binary

For decades, the history of colonial India's economy has largely been told as a binary struggle: the exploitative British coloniser on one side and the subjugated Indian subject on the other. That framework remains indispensable, but it is incomplete. It overlooks the “third men” — the ‘tertium quid’ of the colonial economy. Research on British managing agencies, Indian industrial capital, and foreign commercial houses has shown that late colonial India was shaped not only by the relationship between Britain and India but also by competition among British firms, Indian entrepreneurs, and other foreign actors who operated in colonial markets without directly ruling them.

This is where the Swedish Match Company, or Svenska Tändsticks Aktiebolaget (STAB), assumes historical

significance.

In the National Archives of Sweden and scattered across repositories in Mumbai, Kolkata, Chennai, and Tokyo are company records, tariff inquiries, and trade statistics that tell the story of a Swedish firm becoming deeply embedded in India's commercial life. Recent work on colonialism from the margins argues that states without large formal empires could still participate in imperial extraction and informal empire-building. Studies of Sweden's overseas commercial expansion have similarly challenged the long-held assumption that Nordic enterprise existed outside colonial entanglements.

Tariffs, offshoring, and WIMCO

In the early twentieth century, STAB was not merely a company. It was a global empire built in Sweden under the leadership of the 'Match King' Ivar Kreuger. Founded in 1917, the company expanded rapidly through acquisitions, cartels and monopoly agreements. By

1930, it was the dominant owner of match companies in 33 countries and controlled about 60 per cent of the world's match production.



'Match King' Ivar Kreuger (Wikimedia Commons)

India mattered enormously to this expansion. Research on the Japanese match industry suggests that before the First World War, Swedish and Japanese manufacturers often operated in distinct markets. India, however,

was the principal market in which they competed directly. In 1910, the country had only six match factories, and domestic manufacturers were widely seen as undercapitalised and technologically weak. During the First World War, Japanese exporters captured a substantial share of this trade, while local industry remained fragile and unevenly developed. The Swedish answer was not retreat, but adaptation.

When tariff policy and protectionist pressure made exports less secure, STAB moved towards production in India (Håkan Lindgren, 1979; Hand Modig, 1979).

In 1923, the Western India Match Company, better known as WIMCO, was established in Ambernath near Bombay. Soon thereafter, WIMCO established a wider industrial network that connected Ambernath with factories in Calcutta, Madras and Bareilly in the United Provinces, Port Blair, and, through the Assam Match Company (AMCO), Dhubri, Assam.

Calcutta occupied a particularly important place within this network. The Alambazar factory, established in 1930, placed Swedish Match within one of colonial India's most politically charged and commercially connected urban regions, where labour organisation, nationalist consumption, port trade, and industrial production intersected. During the 1920s, Swedish Match's share of the Indian market rose from around 24 per cent to about 45 per cent. By 1927, its production in India was already as large as its exports from Sweden.



The WIMCO factory in Ambarnath (Niladri Chatterjee, Jönköpings Matchstick Factory Museum, Sweden)



Local production, however, required more than just capital. Swedish Match Company built an elaborate sales network through Indian canvassers who travelled districts, cultivated retailers, channelled orders to wholesalers, and reported market conditions to the firm. By 1932, the company employed around 60 canvassers in India and Burma (now Myanmar), all of them Indians. Its success, therefore, rested not only on European finance and machinery but also on Indian intermediaries who made local markets profitable for them.

The tariff debates of the late 1920s reveal the limits of both colonial policy and corporate strategy. Indian authorities were asking whether the country could sustain a protected domestic match industry, and one central issue was timber. Swedish Match argued on the technical and economic advantages of imported aspen. The Tariff Board, in contrast, maintained that the country's labour force and market size could the domestic industry, even if raw material supplies remained



imperfect in the short term. What emerges here is not a simple story of foreign domination or Indian weakness, but a contested industrial landscape in which technology, environment, taxation, and market size all mattered at once.

Labour, welfare, and conflict

The localisation extended to the factory floor. Swedish Match established or acquired facilities that integrated with different regions of the subcontinent. These workplaces reorganised labour markets, settlement patterns, and social life.

At the factory in Madras in 1929, for instance, only 10 of the 805 employees were Europeans. At another plant, the number of European staff declined even as the overall workforce expanded. The pattern was clear: foreign ownership did not mean a predominantly foreign labour force.

Company records also reveal a



paternalist industrial world. Around more isolated factories, new communities developed with workers' housing, company shops, medical facilities, and schools for employees' children. At Ambernath, WIMCO provided housing, ran a shop that sold goods on wage-linked credit, employed a doctor, and maintained a school. Such initiatives can be considered as welfare measures, but they were also mechanisms for stabilising labour, managing space, and extending corporate authority beyond the factory gate.

Yet to view these settlements solely through the lens of corporate welfare would be to misread the archive. These were not docile industrial communities. Wage disputes, labour grievances, and organised strikes punctuated the company's life. At Ambernath, strikes in 1928, 1935, and 1936 drew the intervention of labour representatives and provincial authorities. One settlement resulted in lower rents for workers' housing, improved

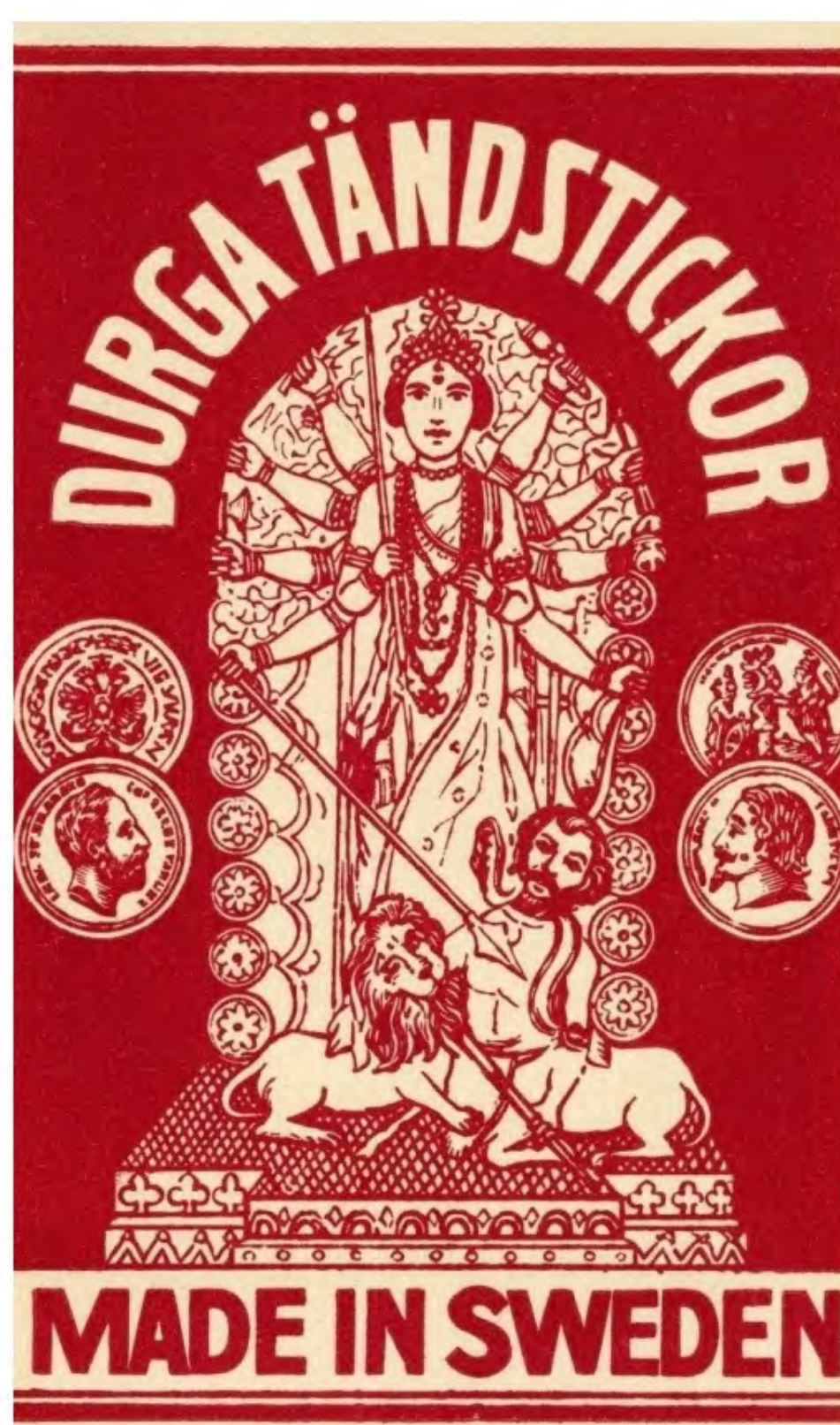
compensation after accidents, and measures to address stoppages caused by machine breakdown. In other words, Swedish Match did not simply transfer technology. It entered a social world shaped by bargaining, resistance, and the growing force of labour politics in late colonial India.

Selling nationalism

The most captivating aspect of this commercial war was the battle for the consumer's mind. Business historians Teresa da Silva Lopes and Shin Tomita, in an article Trademarks as “*Global Merchants of Skill*”: *The Dynamics of the Japanese Match Industry, 1860s–1930s*, write that Japanese firms built international competitiveness not only through low-cost production, but also through trademark registration, quality control, and sophisticated investments in graphic design tailored to export markets.

Similarly, for Swedish Match, India was one of the most important markets,

and labels on its matchboxes were part of the strategy. They depict Mahatma Gandhi, Bharat Mata, the Charkha, the Great Mogul, and Swadeshi Movement slogans like Vande Mataram. More striking still, most of these labels were not made locally. Many of these were labelled ‘Made in Sweden’. Nationalist iconography could be printed on an imported commodity and sold back into the colonial marketplace as a symbol of intimacy, aspiration, and belonging.



For Swedish Match, India was one of the most important markets, and labels on its matchboxes were part of the strategy. (Niladri Chatterjee, Jönköpings Matchstick Factory Museum and Vadstena National Archive, Sweden.)

This matters because Swadeshi was never merely a cultural mood. It was an argument about political economy, about who should own capital, who should control industry, and whose



consumption counted as patriotic. As the economic historian Aashish Velkar writes in *Swadeshi Capitalism In Colonial Bombay*, by the 1930s, swadeshi had become a language through which capitalism and nationalism could reinforce one another, and by the 1950s, it had generated a sharper anti-globalisation rhetoric around Indian industry.

Against this backdrop, the foreign appropriation of nationalist imagery was not incidental. It was commercially intelligent and politically revealing.

It was also a form of appropriation. The same marketplace that encouraged boycott of foreign goods also created incentives for foreign companies to mimic indigeneity, borrow patriotic symbols, and present themselves as less objectionable than openly British competitors.

This ambiguity benefited Swedish firms. They could appear foreign but not colonially sovereign; European but not

British; global but adaptable. That is why Swedish Match's story matters. It shows how capitalism could inhabit an empire without ever being identical to imperial rule.

After empire

The British Empire eventually retreated, taking its viceroys and symbols of formal power with it. Swedish commercial power, however, proved far more resilient. WIMCO remained under Swedish Match Company's control until 1991, and the Swedish group returned to a controlling position in the company in the late 1990s. The connection, therefore, outlived the empire by decades. Decolonisation, in this sense, did not dissolve foreign capital. It changed the terrain on which foreign capital operated. The longer history also intersects with postcolonial development.

In its article *The Origins of Import Substituting Industrialization in India*, historian Tirthankar Roy argues that India's post-Independence import-

substituting industrial regime had its roots in colonial protectionist debates of the 1920s, even though its application after independence became broader and less discriminatory. That continuity helps explain why firms such as WIMCO could survive in an altered form. They had already learned how to navigate tariffs, local production, Indian intermediaries, and the politics of nationality in the marketplace. It serves as a powerful reminder that while political flags may be lowered, the quiet, adaptable power of global capital often proves far more difficult to uproot than the empires that once sheltered it.

What, then, does this history change?

It reminds us that the British Raj in India was not a monolithic entity, and the economy of the British Empire was never a story of the Union Jack and the Indian tricolour, but a ‘polycolonial’ space where multiple global powers intersected, collaborated, and competed. It involved smaller European states, Japanese exporters, Indian merchants,

provincial regulators, factory workers, and consumers whose choices were shaped by price, design, quality, and politics at once. It also shows that neutral or non-imperial actors were not outside colonialism. They could inhabit its opportunities without exercising direct sovereignty over it.

By placing Gandhi's portrait, Bharat Mata's image, or Vande Mataram on a matchbox, foreign manufacturers entered not only Indian markets but also Indian political imagination. That is why the history of Swedish Match in India is larger than the history of a company or a commodity. It is a history of how empire, nationalism, and capitalism became entangled in everyday life, and of how something as ordinary as a matchbox can illuminate the global complexity of India's twentieth century.

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Why **the next iPhone** could be a tough buy in India

by Anuj Bhatia

With only two months left until Apple unveils the new iPhone 18 series and other hardware at its September launch event, many are wondering how much more the new devices will cost compared to their predecessors. Apple has already raised prices across a wide range of products, including iPads, Macs, and home devices. In some cases, prices have increased by 18 per cent to nearly 33 per cent, largely due to the global memory shortage as AI companies snapped up memory supplies for data centres.



Given the current situation, analysts and industry insiders believe that the new iPhones launching this fall may cost substantially more. This could place an additional burden on consumers' pockets at a time when the cost of living remains high, inflation continues to weigh on household budgets, and job uncertainty in the AI era is making many people anxious.

Rising gadget prices and the prospect of a sharp increase in iPhone prices have sparked concerns online that smartphones could take an even bigger bite out of consumers' budgets amid persistent inflation. In India, for example, where wage growth has remained sluggish and youth unemployment remains high, buying a pricey iPhone could mean taking on a larger EMI burden. All of this comes at a time when Apple has made deeper inroads into the Indian market and, after years of patience, the iPhone has become the country's top-selling premium smartphone and gained market share.

The big picture

While Apple doesn't comment on future pricing, a Counterpoint Research report estimates the bill of materials (BOM) for the upcoming iPhone 18 Pro Max could rise to \$300 compared to the iPhone 17 Pro Max released last year. That's roughly a Rs 28,717 price increase to manufacture the highest-end iPhone with 1TB of storage.



The iPhone Fold could standardise a widescreen foldable phone.

Rising NAND and DRAM memory prices, along with the higher manufacturing costs of Apple's next-generation 2nm chip and its advanced packaging, are also expected to increase production costs. Camera costs are expected to rise



slightly as Apple plans to introduce a new camera technology in the iPhone 18 Pro and Pro Max.

Apple typically raises the prices of its products only under exceptional circumstances. If you have been wondering why this could happen now, the AI boom is driving up the prices of everyday gadgets. There's no sugarcoating it: companies like Apple are likely to protect their profit margins by eventually passing the higher costs on to consumers. Since iPhones are already priced at a premium, the ongoing memory shortage is likely to force consumers to pay even more.

RAM shortage to continue

While artificial intelligence was initially seen as a positive shift in productivity, it is now affecting various aspects of daily life, from environmental concerns, including the consumption of billions of gallons of water and other natural resources, to the spread of AI-generated content on social media, declining



incomes, and job cuts.

The AI boom has also contributed to a shortage of memory used in smartphones and laptops, leading to a sharp rise in RAM prices as memory-chip makers shift production toward more profitable high-bandwidth memory for AI data centres and away from consumer-grade DRAM. According to Counterpoint Research, DRAM prices rose by 80 to 90 per cent in just the first six weeks of 2026. It is therefore unsurprising that DRAM prices are expected to jump by another 50 per cent or more in 2026, according to market researcher TrendForce.

The situation has reached a point where brands are reducing production of low-end and budget smartphones and laptops. More companies are shifting their production priorities toward mid-range and high-end devices. Even the prices of premium smartphones and laptops are rising, and manufacturers are likely to pass along these higher costs to consumers.

We have already seen Apple raise prices across some of its products recently. Insiders expect another steep round of price increases for smartphones and laptops in the second half of the year, with fewer discounts likely during the festive season.



Apple is increasing the price of MacBooks and iPads worldwide due to rising memory and storage chip costs. (Image credit: Anuj Bhatia/Indian Express)

Don't delay buying a new iPhone

With the memory crisis expected to continue until 2028, it may not make much sense to wait longer to buy an iPhone if you have already been holding off for a long time. I wouldn't expect the current-generation iPhone 17's price



to drop anytime soon, even after the iPhone 18 launches. Experts are already hinting at a possible price increase for the iPhone 18, which could make it more expensive than the iPhone 17.

However, if you have been waiting to upgrade to a standard iPhone model, it is worth noting that Apple may not release the iPhone 18 this year, unlike in previous years. Instead, the company could launch the device in spring 2027. While that would be an unusual move, it would also keep the iPhone 17 on the market for longer.

...but what about the iPhone 18 Pro/Max?

Well, both the iPhone 18 Pro and iPhone 18 Pro Max are expected to launch this fall, but the new models are likely to have starting prices that are \$200 (approx. Rs 19,148) higher than last year's models. In India, however, the iPhone 18 Pro models could cost even more. As a result, your monthly EMI payments may also increase

significantly. Keep that in mind before getting too excited about the iPhone 18 Pro lineup.

I wouldn't recommend buying the iPhone 17 Pro or iPhone 17 Pro Max now if you have already decided to get the iPhone 18 Pro series.



Apple is reportedly considering a major change to its iPhone release strategy, with premium iPhone 18 models and a foldable iPhone expected to take centre stage in 2026. (Image: X/Saurav)

Pricier iPhone 18 Pro, iPhone Fold may hog the spotlight

Despite the tough economy, Apple's September event is expected to focus on pricier Pro models and a new ultra-high-end foldable iPhone. Perhaps the strategy is to target consumers who are



already flush with cash, especially those working for new-age AI companies, influencers and content creators. High-end iPhones remain in demand as both highly useful devices and status symbols.

Clearly, Apple is looking to position the iPhone 18 Pro and Pro Max as the *crème de la crème* devices. Both models may feature under-screen Face ID for the first time, but the Dynamic Island is expected to remain. The iPhone 18 Pro and iPhone 18 Pro Max are also expected to feature a uniform rear design instead of the two-tone look seen on the current iPhone 17 Pro models. The camera lenses are expected to appear more prominent, while the Apple logo could feature a reflective finish.

But Apple is looking beyond the premium iPhone Pro series. For the first time, the company may launch a foldable iPhone that could cost over \$2,000 (approximately Rs 200,000). However, the device may remain in limited supply, making it extremely

difficult for consumers to get their hands on Apple's first foldable iPhone.

The iPhone Fold, or whatever Apple may ultimately call it, is expected to feature a 5.5-inch exterior display and a 7.8-inch interior display, which is slightly smaller than the 8.3-inch iPad mini. It is likely to have a square screen when folded, making it considerably wider when unfolded. I expect it to look similar to Samsung's upcoming Galaxy Z Fold 8 Wide, which is set to launch early next week at an event in London.



Apple used WWDC 2026 to showcase a revamped Siri and a broader AI strategy focused on practical features integrated across its devices.

(Image: The Indian Express/ Anuj Bhatia)



Widening income gap and rising cost of living

Rent, groceries, petrol, travel, and EMIs. If you are a young person working and living in a metro city, you have likely seen countless discussions online and on Reddit asking, “Why is everything so expensive?”

Times are tough for many people, especially young adults. Student loan debt is rising, and even getting a job after pursuing traditionally “safe” courses such as a BTech in Computer Science or an MBA has become increasingly challenging. The impact of inflation is real, and factors such as the US-Iran war and AI Boom have further contributed to rising costs.

The question is whether consumers will show interest in Apple’s more expensive iPhone models, which are due to launch later this year. Sure, Apple has a strong pull, and many people are willing to pay a premium for its products. However, rising inflation, soaring housing



prices, hidden costs, stagnant wages, and a widening wage gap, particularly affecting young people, could make it more difficult for consumers to justify spending more on premium devices such as the iPhone in this economy. Of course, EMIs and easy personal loans have made iPhones “accessible” to millions of Indians.

But as the global economy takes shape and AI rapidly displaces white-collar jobs, one wonders whether consumers will still have the same appetite for paying premium prices for high-end smartphones as they once did. There is a real imbalance of power, and consumers are feeling a greater squeeze from rising rents, grocery bills, and the increasing prices of everyday gadgets.



How Mughal gossip and household secrets **shaped an Empire**

by Shafey Kidwai

Life stories, or Tazkiras (biographical, cultural, literary, and anecdotal compendia of famous individuals), often contemptuously dubbed “commemorative texts” by traditional historiography, spell out the ever-changing and intimidating power dynamics of pre-national notions of nationalism and territorial sovereignty in medieval India. Similarly, they go beyond showcasing individual moments of exaltation and tribulation in the idiom of eulogy and lament, and unwrap moving emotional narratives situated



at the intersection of complex political dynamics, personal ambitions, and social formations.

Life narratives, frequently though erroneously perceived as straightforward factual narration or chronicle-praising patterns, offer immediate, less retrospective perspectives on individuals. Such texts, filled with mundane details of domestic life, manifest social, political, and cultural assumptions and practices that formal historical chronicles suppress. They unfailingly access the emotional register — anxiety, rivalry, jealousy, ambition, devotion, and loyalty — seldom found in administrative records. In the Mughal era, innumerable autobiographies, didactic and normative texts, memoirs, letters, anecdotal accounts, and laconic sketches of poets, scholars, saints, and authors were produced, and some Tazkiras, or biographical chronicles featuring the Mughal nobility, were also produced, providing a firsthand account of how the Mughal court functioned. With their broader sweep of social and

cultural moorings, they place individuals and events in a proper socio-political context.

A promising historian, Shivangini Tandon, brought together three such Tazkiras with significant but less realised historiographical significance, written in the 17th and 18th centuries. For her, these are political Tazkiras that reveal the nuanced layers of the social, cultural, and political world they inhabit, and they provide a methodical, socio-cultural exploration of intricate political formations that micro-narratives of domestic and social relationships with imperial sovereignty poignantly portray. This is skilfully articulated in Shivangini Tandon's new book, *Life Stories in Mughal India: Indo-Persian Biographies, 16th–18th Century* (Routledge, 2025). The study offers a gripping, non-reductive close reading of Tazkiras.

Eschewing commonplace abstractions such as nobility and peasantry, and using the household's emotional

ambience and banal details as sites of political formation, the historian examines how individuals, households, and the everyday texture of power interact. Life stories do not necessarily construct a persona; instead, they judiciously juxtapose emotional registers with social and cultural norms, thereby making them cultural and literary artefacts. The author nonchalantly pushes aside the positivist historiography that affirms the authenticity of life narratives, but casts aspersions on the constitutive literary, rhetorical, and hagiographical elements of the genre.

The Tazkira centres on the explication of social and cultural life, with a focus on the life of a particular individual, articulated through community identities and household ties. Recently, Mana Kia (*Persianate Selves: Memories of Place and Origin Before Nationalism*, Stanford University Press, 2020) and Katherine Butler Schofield (*Music and Musicians in India: Histories of the Ephemeral, 1748–1858*, Cambridge

University Press, 2024) anchored their studies on the biographical, emotional, and cultural insights tantalisingly evinced in Tazkiras. Shivangini, a proponent of emotional history, seeks to bypass normative historiography by telling the story of Mughal decline through the emotional register.

At the outset, she points out, “I study life stories not merely to recover the life of a person but to see how these sources construct the narrative of that time.” This book also highlights the need to move away from an emphasis on historical chronicles, didactic texts, and even poetry, and instead focus on the genre of Tazkiras to better understand the process of early modernity. Studies of early modernity based on court chronicles are mostly flat narratives, emphasising far too much the agency of the state and ignoring the agency of the common people. The Tazkiras, however, bring structures into communication with agency, thereby highlighting how social structures influence, or emerge from, human agency, and vice versa.

Based on three Persian texts

Making three Persian texts — *Zakhiratul Khawanin* (Repository of the Nobles, 1650–51) by Shaikh Farid Bhakkari, *Maasir al-Umra* (Biographies of Contemporary Nobles, 1556–1780) by Shamsud-Daulah Shah Nawaz Khan, and *Akhbar al-Akhiyar fi Asrar al-Abrar* (Report of the Mysteries of the Pious, 1591) — the object of close textual analysis, the author structures her book not to furnish a dispassionate, factual account of the events and lives of individuals, but to unveil the covert layers of domesticity, selfhood, gender, civility, masculinity, and the politics of fosterage and fealty. The construction of women's identity and the liminal zone occupied by women in the lives of the ruling elite during Mughal rule are also brought to light.

In the second chapter, *Domesticity as a Political Space in the Tazkiras: Constructing the Mughal Household through Emotions, Gastronomy and*

Politics, Shivangini picks holes in the widely accepted notion of a centralised, bureaucratic Mughal state, and asserts that informal alliances and intimate relations were constitutive elements of imperial sovereignty. The household emerged as an active site for political negotiations, alliances, and emotions, and the author draws on documentary evidence from three important court chronicles — the Babur Nama, the Humayun Nama, and the Ahval-i-Humayuni by Gulbadan Begum (sister of Humayun) — to show that Mughal imperial sovereignty owed much to kin networks and matrimonial connections, that relations with wives and concubines mattered politically, and that familial emotions were interwoven with political dynamics. She shows how aristocratic households became centres of patronage networks, integrating ordinary people into the system through their redistributive activities.

The three Tazkiras, described by the author as “political,” use a preachy, value-laden idiom. This becomes

especially evident in the description of conjugal intimacy and erotic love, and Shivangini is alert to it. Turning to the defensive, justificatory voice of the compilers, she points out that love for a wife was termed *muhabbat* (love) and *unsiyat* (intimacy or affection, though the author reads it as endearment), while longing for a courtesan or concubine was *nafs* (carnal desire, which Shivangini reads as a desire for baser instincts) — a perversion that should not be allowed to bloom.

In the pre-modern era, identities were shaped by relationships, educational networks, spiritual affiliations, and social alliances; according to Natalie Zemon Davis, Tazkiras are forms of cultural articulation that shaped civility and gender relations. The third chapter, *Structuring the Body and Selfhood*, examines gender, civility, and norms of masculinity in the Mughal Tazkiras with critical acuity and cultural sensitivity. One tends to agree with the author's observation that in the early modern period in South Asia, the body was an

important site where norms and values were constructed and contested.



Akbar holds a religious assembly of different faiths in the Ibadat Khana in Fatehpur Sikri.

Much has been written about how household, concubinage, and gender relations triggered internal politics and power struggles, but milk fosterage/kinship, feasts, and fealty have hardly received profound academic scrutiny. Since Islam recognises both blood (nasab) and milk (rida'a) kinship, medieval Islamic history witnessed several strong political alliances based on milk kinship. In the Mughal dynasty, political and administrative affiliations through milk kinship flourished considerably, and the fourth chapter elucidates the political dimensions of fosterage.

Shivangini observes that ties formed through milk fosterage were crucial and often appeared more binding than those of blood kinship. She examines how the case of Akbar's foster brother, Muhammad Aziz Koka, is discussed across two Tazkiras — the Zakhiratul Khawanin and the Maasir al-Umra. The fifth and sixth chapters offer a profound, alternative understanding of the pivotal role of women in structuring

Mughal administration and societal norms, and of the representation of socially marginalised groups in texts written during the 17th-18th centuries. The discussion concludes memorably: service was not a source of social stigma but could also carry traces of subjection alongside attributes of privilege, honour, and manliness.

The book avoids abstraction and theoretical jargon in favour of an accessible idiom. The author does well to restore visibility to the marginal or forgotten actors whose life stories offer a window into the political dynamics of medieval India.

(Shafey Kidwai, a bilingual critic, is the director of Sir Syed Academy, Aligarh Muslim University, Aligarh)





The hidden burden of being a woman in India

by Swarupa Tripathy

The first thing I noticed in Vietnam wasn't the food, the heat, or the beauty of the streets at golden hour. It was something far quieter and far more disorienting: I noticed I wasn't being as constantly vigilant as I had been earlier, when I travelled to Kerala.

No one was staring. No one was filming. And no one was tracking my movements across a street or a beach. And somewhere in the middle of a ten-day trip across Da Nang, Ba Na Hills, Hoi An, Hanoi, Ninh Binh and Ha Long Bay,



I realised that my guard had dropped completely, and I couldn't remember the last time that had happened.

But I'm getting ahead of myself. Let me start at the beginning.

Part one: Vietnam

The flight from India landed in Hanoi before connecting to Da Nang, where my family and I stepped out of the airport into a wall of June heat. What struck me first was the stillness of it. The streets were spotless. There was traffic, but no one was constantly honking. Locals glided past on scooters in colourful, adorable helmets. After Delhi, it felt almost surreal.

By the time we checked into our Airbnb, the evening had softened the heat. We showered and headed out, drawn into streets alive with the smell of grilled seafood. Food stalls, cafes and massage parlours spilt onto the pavement. We had burgers and mocktails for dinner at Bikini Bottom before walking along the



beach, the sea dark and warm, the night air easy. It was a perfect first evening, and I felt safe.

The next morning was given entirely to Ba Na Hills, and our cab driver had warned us we'd need the full day. He was right. We rode one of the world's longest cable cars to the top, where the air cooled noticeably. The crowds were thick, but the scenery made it irrelevant. We went on the famous Alpine Coaster twice, drank Highlands Coffee, and wandered through the French Village as evening rolled in and the shops began closing.

Then, after it began pouring suddenly, we joined the long queue for the cable car back, returning to Da Nang around 8 pm. We freshened up and headed to Michelin-recognised Hải sản Mộc quán Đà Nẵng for dinner. The seafood was remarkably fresh, though I quickly learned that Vietnamese cuisine leaned sweeter than my palate was used to.

On the third day, we drove to Hoi An.

After checking in, our first stop was Madam Khanh — the famous Bánh Mì Queen — where the sandwich was a little dry, but hunger made it disappear quickly. We spent the afternoon wandering the Old Town’s lantern-lined streets and tailor shops. As evening approached, we took one of the iconic lantern boats along the river, then watched the Memories Show — a sweeping performance narrating Hoi An’s history through music, elaborate costumes and dance that left me genuinely moved. We wrapped up with dinner at a nearby bar before heading back.



Banh Mi (Credit: Swarupa Tripathy)

We returned to Da Nang the next day for its internationally renowned fireworks festival, and I am not exaggerating when I say it was one of the most breathtaking things I have ever seen. That evening featured Vietnam and France in competition, and standing among thousands of people watching the sky erupt into light and colour, there are no adequate words for it. Just: magic.

The following morning, I swam at My Khe Beach before we visited the Marble Mountains, climbing to the top through shrines and caves to panoramic views of the coastline, before boarding an overnight sleeper bus to Hanoi.

We arrived the next morning in a different kind of city. Hanoi had a more layered, lived-in energy than Da Nang. We spent the day in the Old Quarter, exploring pagodas, winding through narrow streets, visiting the famous Train Street and Beer Street. The city felt ancient and restless at once.

The day after was reserved for Ninh Binh



on a guided tour. We visited a pagoda, cycled through the countryside of startling green and limestone cliffs, and then took a boat through the region's famous caves — gliding through dim, dripping chambers while the landscape rose vertically around us. One of those days that stays with you.

The trip's centrepiece was Ha Long Bay: a one-night stay on a five-star cruise, my first time on a cruise of any kind. A smaller boat ferried us to the ship, where we were welcomed with a seafood tasting menu before heading to Sung Sot — Surprise Cave — whose vast chambers and formations left us standing in silence. We stopped at Titop Island to swim, then returned to the ship for an evening on deck: dinner, conversation, and squid fishing in the dark.

Our final day brought us back to Hanoi by bus from the port. We spent the last hours revisiting the Old Quarter, shopping at local markets, eating one last round of Vietnamese food, and gathering souvenirs before flying home

the next morning.

Part two: What I actually brought home

Somewhere around the third or fourth day in Vietnam, I noticed something was missing.



Banana latte (Credit: Swarupa Tripathy)



I was walking back to the hotel alone after dinner, later than I'd usually allow myself to wander in India. It was past 10 pm. The streets were still humming — families outside, food stalls lit up, a couple of other tourists heading the same direction. I was wearing a sleeveless dress I'd have thought twice about in certain parts of Delhi or Varkala. And as I walked, I realised I wasn't running any calculations about the people, surroundings or the clothes that I was wearing. I was just walking.

It took a moment to understand what I was feeling. And then I understood: I felt invisible.

In Vietnam, women occupied public spaces as a matter of fact. They worked at stalls and drove scooters and sat alone in cafes at midnight without anyone registering it as notable. The streets were full and active well into the evening. Not in the chaotic, surveilling way I know from home, but in a way that felt safe precisely because no one seemed to be watching. I moved through



market crowds and beach promenades and busy restaurant strips without a single moment of someone staring too long. And the absence of that scrutiny felt extraordinary.

Walking at night

At home, walking alone at night involves a low-level arithmetic that operates almost below conscious thought. Which route is better lit? Which has more people? If something happened here, who would notice? What time is late enough that I should take a cab instead? I run these numbers without thinking.

In Vietnam, I walked at night from restaurants to hotels without performing any of this. I got back to the hotel and thought, ‘I didn’t plan a single exit strategy. I didn’t even notice that I hadn’t noticed.’

DK Ghatani, travel consultant and CEO of Sikkim Expeditions, describes this well. He told indianexpress.com that in places like Vietnam, the



predictability of public spaces plays a crucial role. “Streets remain active late into the evening with families, local businesses, and community life continuing well beyond sunset,” he said. “Women frequently report experiencing fewer intrusive interactions, less unsolicited attention, and a stronger sense of anonymity. The social culture tends to normalise women occupying public spaces independently, which allows travellers to move around without constantly feeling observed or evaluated.”

Wearing what I wanted

In my Kerala piece, I wrote about the clothes I left folded in my bag — vacation outfits that stayed unworn because wearing them felt like a negotiation I didn’t have the energy to have. Cut-out tops and a bikini, clothes I’d packed with the weather in mind, were replaced by things that would draw less attention.

In Vietnam, I wore what I’d packed.

Sleeveless tops, shorts, and a dress that hit above the knee. On the beach, a swimsuit. I wore these things, and nothing happened. No one filmed me. No one stared. No one made me feel like my clothing was an announcement or an invitation. The heat was the only thing that determined what I put on each morning.

Practical dressing decisions, Ghatani says, should always be about situational awareness, not moral responsibility. Women are not dressing to prevent harm but to reduce friction in unfamiliar environments.

The moment my guard dropped

I don't know exactly when it happened, but I can identify the neighbourhood. It was somewhere between Hoi An and Ninh Binh. I had started making decisions without running them through the usual filter first. Taking a solo walk while the others napped. Sitting at a cafe outside, alone, for an hour. Wearing that dress without a second thought.



I didn't notice any of this while it was happening. That's the point. I only recognised the shift retrospectively, which means my nervous system had decided it was safe to stop bracing.

Health psychologist Puja Roy describes this. “The difficulty is that this constant awareness takes energy, even when it feels automatic,” she told me. “A part of the mind is always occupied with assessing situations and considering potential risks. What I often find is that many women don't realise how much effort goes into these safety calculations until they find themselves in an environment where they no longer feel the need to make them.”

She also described what the reverse of that feels like — the gradual release into safety: “When attention is no longer focused on monitoring potential dangers, there is often more room to simply enjoy the environment, notice what is happening around them, and be present in the moment. The body can respond as well—people often describe



feeling less tense, sleeping better, and finding it easier to relax.”



Da Nang Fireworks Show (Credit: Swarupa Tripathy)

Richa Mohta, clinical psychologist and founder of the mental health platform Self Pivot, adds, “When someone has lived in chronic threat, the nervous



system can actually misread safety as danger. It keeps scanning, even when the environment is objectively safe. The threat detection system has been recalibrated by prolonged exposure, so the absence of threat itself can trigger anxiety rather than relief.”

What we have been taught to accept as normal

The hypervigilance women carry through Indian cities and public spaces is something we were taught through years of learning what it costs to be careless in public. It is so deeply ingrained that I had stopped experiencing it as effort. It had become the texture of ordinary life.

It took Vietnam to show me the shape of what I’d been carrying.

Mohta describes this, mentioning, “Imagine somebody being tied for a long time and suddenly the ropes have been loosened; it is exactly that. It is you being able to breathe, being able to



rest, because there is no danger to be scanned. After all, you are okay in your own skin.”

She also names something rarely discussed alongside relief: “Alongside relief comes grief. Grief for how long you lived otherwise, or how you think you could have lived.”

I wasn’t expecting grief. But I felt it, briefly, somewhere on the flight home — a strange, passing sorrow for all the trips where I’d accepted that some version of myself had to stay packed away, the same way some clothes had to stay folded in the bag.

Roy explains why women often only discover what they’ve been carrying once it’s temporarily lifted: “When something becomes part of everyday life, it often fades into the background, even though it continues to affect them. It is a bit like carrying a heavy bag for a long time and only noticing how heavy it was once you put it down.”

Mohta goes further, stating, “What happens over time is that the world becomes physically smaller. You change your routes, you avoid certain places, you alter when you leave and when you return. That is not a choice; that is a forced adaptation. And it is not just personal; it is civic. When women cannot move freely through public space, their participation in public life is curtailed. That is a systemic issue, not an individual one.”

What India could learn

Ghatani, when I asked him what Indian cities could take from places where women feel genuinely safer, didn’t begin with policing or policy. He began with something simpler: norms.

“The biggest lesson is that women’s safety extends beyond policing and infrastructure,” he said. “It involves creating public spaces where women can move without being monitored, questioned, or made uncomfortable. Active streets, reliable public transport,



good lighting, visible community presence, and stronger social norms against harassment all contribute to this environment.”

In Vietnam, I wasn’t safe because of any specific law or policy. I was safe because the social assumption seemed to be that women simply exist in public, and that this is fine, and that no one needs to comment on it, document it, or surveil it. That assumption was the entire difference.

I came home from Vietnam the way I came home from Kerala. But the two trips left me with different things. Kerala gave me questions. Vietnam gave me a measure for what the answers might look like.

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