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## TELLING NUMBERS

### Maharashtra, Gujarat have the most numbers of non-compliant polluting factories

RESPONDING TO a query in the Lok Sabha on Friday, Babul Supriyo, Minister of State for the Ministry of Environment, Forest and Climate Change, shared the all-India and state-wise data of all industries that emit highly polluting toxins.

As the table alongside shows, both in absolute terms and as a proportion of the total, Maharashtra and Gujarat have the most number of polluting industries that have still not complied with the pollution control norms. Between them, these two big states account for more than 53 per cent of all non-compliant industries in the country.

According to the data furnished by the Central Pollution Control Board (CPCB), there were a total of 4,264 highly polluting industries in India. Out of these, 518 industries are still non-complaint. The CPCB has issued a total of 156 closure directions till now. However, legal cases have been filed against only five units — all of which are in Maharashtra.



Representational image

Tamil Nadu led the states that have the best compliance levels; it had zero non-compliant industries. Uttar Pradesh, too, stands out with just 25 non-compliant industries, which, however, is just a blip when compared to the total number of highly polluting industries in the state. As things stand, CPCB has issued closure directions to 24 of these.

Keeping Tamil Nadu company are some of the most resource-rich states such as Odisha, which has just 3 non-complaint industries out of 174, and Chhattisgarh, which has just 6 such industries out of the total 163.

States and UTs	Total	Non-complying Industries	Closure Directions Issued	Legal Action Filed
Andhra Pradesh	243	22	1	0
Chhattisgarh	163	6	1	0
Gujarat	517	97	24	0
Haryana	161	5	2	0
Karnataka	246	15	12	0
Maharashtra	480	179	31	5
Odisha	174	3	0	0
Rajasthan	161	20	2	0
Tamil Nadu	156	0	0	0
Telangana	310	69	40	0
Uttar Pradesh	942	25	24	0
West Bengal	131	24	9	0
Total	4264	518	156	5

Source: Lok Sabha question

## THIS WORD MEANS DEEPPFAKE

The artificial intelligence software that can change videos marks a new frontier for fake news

DEEPPFAKE IS a portmanteau of “deep learning” and “fake”. It is an Artificial Intelligence (AI) software that superimposes a digital composite on to an existing video (or audio). The origin of the word “deepfake” can be traced back to 2017 when a Reddit user, with the username “deepfakes”, posted explicit videos of celebrities.

“The term first rose to prominence when Motherboard reported on a Reddit user who was using AI to superimpose the faces of film stars on to existing porn videos, creating (with varying degrees of realism) porn starring Emma Watson, Gal Gadot, Scarlett Johansson and an array of other female celebrities,” a report in *The Guardian* said. In June this year, a deepfake

video surfaced that showed Mark Zuckerberg saying that he is in total control of the stolen data of billions of people.

Deepfakes are created by machine learning models, which use neural networks to manipulate images and videos. A model such as this “analyses video footage until it is able algorithmically to transpose the ‘skin’ of one human face on to the movements of another — as if applying a latex mask,” a separate report in *The Guardian* said.

The debate around “deepfakes” has been rekindled recently with the popularity of applications such as FaceApp (for photo-editing) and DeepNude ( that produces fake nudes of women).

MEHR GILL

UDIT MISRA

NEW DELHI, JULY 28

AN INTER-ministerial committee (IMC) that was set up to assess the viability of virtual currencies has recommended that India should ban private cryptocurrencies such as Bitcoin. The detailed report of the IMC was submitted on February 28 but it was made public only on July 23. It is available on the Department of Economic Affairs’ website.

#### What are virtual currencies?

A virtual currency is a digital representation of value that can be digitally traded and functions as (a) a medium of exchange, and/or (b) a unit of account, and/or (c) a store of value, but, unlike fiat currency like the rupee, it is not legal tender and does not have the backing of a government. A cryptocurrency is a subset of virtual currencies, and is decentralised, and protected by cryptography.

#### What are Distributed Ledger Technologies and Blockchain?

Imagine a small group of school friends maintaining a list of transactions among themselves, but with a twist: Instead of holding this list in one single computer or in the notebook of one of the group members or authorising some outside authority (say, their class teacher) to maintain (and update) the list, all of them decide to maintain a separate copy of the list in their personal computers. Every time they transact, the rest of the members verify the transaction and once it is verified by all, they update their list. Further, to make sure that none of them changes records of the past transactions in their personal list, they decide to place each transaction as a block, and to stack it one after the other in a sequence. This way, no one can tweak the details of any past transactions because the overall sequence will not match with sequences held by others. Lastly, to make sure that no other child from the school gets to know the details, they devise a code (a cypher) for all their communications related to the list.

Broadly speaking, this is how Distributed Ledger Technologies, and Blockchain, in particular, function. DLT refers to technologies that involve the use of independent comput-

## SIMPLY PUT QUESTION & ANSWER

# Understanding cryptocurrencies: what’s to like, and what’s to fear

The absence of regulation is the most appealing aspect of a cryptocurrency. It is also the most dangerous

### COMPARISON OF REGULATORY TREATMENT OF CRYPTOCURRENCIES IN DIFFERENT JURISDICTIONS

Activities	Russia	China	Switzerland	Thailand	Japan	New York	Canada
Legal Tender	No	No	No	No	No	No	No
Payment Method	No (but barter is permitted via exchanges)	No	Yes	Yes	Yes	Yes (subject to registration requirement)	Yes (and transactions are taxed)
Investment Token	Yes (but only through exchanges)	No	Yes (but transactions must comply with securities laws)	Yes (but they are only issued by govt approved portals)	Regulation is silent on this, but it is under consideration	Yes, with some conditions	Yes
Crypto Exchanges	Yes	No	The guidelines are silent	Yes	Yes, but only through registered exchanges	Yes, subject to some laws on exchanges	Yes

ers (also referred to as nodes) to record, share, and synchronise transactions in their respective electronic ledgers. Keeping such distributed ledgers obviates the need for keeping the data centralised, as is done in a traditional ledger. All virtual currencies use DLT.

A transaction under DLT essentially refers to the transfer of “value” from one to another. This “value” could be any record of ownership of assets — money, security, land titles — or the record of specific information such as information about one’s identity or health information, etc. That is why DLT has applications in several fields.

Blockchain is a specific kind of DLT that came to prominence after Bitcoin, a cryptocurrency that used it, became popular. Cryptocurrencies such as Bitcoin use codes to encrypt transactions and stack them up in blocks, creating Blockchains. It is the use of codes that differentiates cryptocurrencies from other virtual currencies.

#### What is the IMC’s view on DLT and cryptocurrencies?

The first thing to understand is that the IMC recognises the potential of DLT and Blockchain. The IMC accepts that internationally, the application of DLT is being explored in the areas of trade finance, mortgage loan applications, digital identity management or KYC requirements, cross-border fund transfers and clearing and settlement systems. To

that extent, it recommends the Department of Economic Affairs (within the Finance Ministry) to take necessary measures to facilitate the use of DLT in the entire financial field after identifying its uses. The IMC also recommends that regulators — RBI, SEBI, IRDA, PFRDA, and IBBI — explore evolving appropriate regulations for development of DLT in their respective areas.

However, the IMC has recommended a ban on “private” cryptocurrencies. In other words, it is open to a cryptocurrency that the RBI may unveil. The IMC’s view is that it “would be advisable to have an open mind regarding the introduction of an official digital currency in India”. It noted that the RBI Act has the enabling provisions to permit the central government to approve a “Central Bank Digital Currency” (CBDC) as legal tender in India.

#### Why have private cryptocurrencies attracted a ban?

While it is true that the technology used in virtual currencies has immense potential, without a central regulating authority, they can have numerous downsides. The IMC’s first concern is that non-official virtual currencies can be used to defraud consumers, particularly unsophisticated consumers or investors. The IMC gives the example of the Rs 2,000 crore scam involving GainBitcoin in India where investors were duped by a

Ponzi scheme. Moreover, such currencies often experience tremendous volatility in their value. For example, Bitcoin was selling at \$20,000 per coin in December 2017 but in less than a year, it was trading at \$3,800 per coin. In a country where lakhs of traders get involved in such currencies, this could have huge implications.

Second, scaling up such a currency system over a large population would require crippling levels of energy resources. Currencies such as Bitcoin require humongous processing power. According to a report by the Bank of International Settlement, Bitcoin processing already uses as much energy as is used by Switzerland; it called this an environmental disaster.

Third, the IMC is worried that if private cryptocurrencies are allowed to function as legal tender, the RBI would lose control over the monetary policy and financial stability, as it would not be able to keep a tab on the money supply in the economy.

Fourth, the anonymity of private digital currencies make them vulnerable to money laundering and use in terrorist financing activities while making law enforcement difficult.

Fifth, there is no grievance redressal mechanism in such a system, as all transactions are irreversible.

It is for these broad reasons that the IMC singled out private cryptocurrencies for a ban.

# What’s behind Iconic Tourist Sites initiative?

DIVYAA

NEW DELHI, JULY 28

DURING HER Budget speech earlier this month, Finance Minister Nirmala Sitharaman said that 17 “Iconic Tourist Sites” in the country would be developed by the government “into world class tourist destinations, to serve as a model for other tourism sites”. The initiative was aimed at enhancing India’s soft power.

#### The Sites

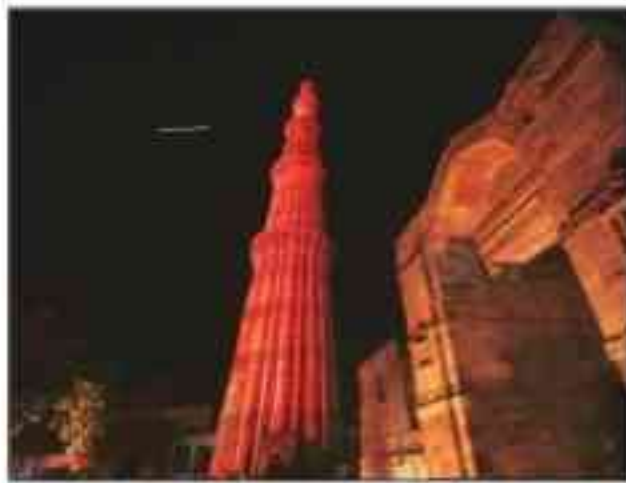
Taj Mahal and Fatehpur Sikri (Uttar Pradesh), Ajanta & Ellora (Maharashtra), Humayun’s Tomb, Red Fort and Qutub Minar (Delhi), Colva (Goa), Amer Fort (Rajasthan), Somnath and Dholavira (Gujarat), Khajuraho (Madhya Pradesh), Hampi (Karnataka), Mahabalipuram (Tamil Nadu), Kaziranga (Assam), Kumarakom (Kerala) and the Mahabodhi Temple (Bihar).

#### The Vision

Union Tourism and Culture Minister



Among the chosen sites are the Taj Mahal in Agra and the Qutub Minar in Delhi.



Prahlad Patel told *The Indian Express*, “The government is looking at overall development from the tourism point of view in and around these sites — which includes roads and infrastructure, hotels and lodges, connectivity and access”. As such, several ministries, from Railways to Civil Aviation, will be involved, while the Tourism Ministry will be the nodal agency. In keeping with interna-

tional standards, interventions in and around the monuments will have elements of universal accessibility, green technology, and enhanced security for tourists.

#### The Funding

The Tourism Ministry has been allocated Rs 1,378 crore for the development of tourism infrastructure. This is only margin-

ally more than the allocations in 2017-18 (Rs 1,151 crore) and 2018-19 (Rs 1,330 crore).

#### Role of ASI

A spokesperson of the Archaeological Survey of India told *The Indian Express*, “We have not yet received any plan or proposal from the Tourism Ministry about the project mentioned in the Budget... Meanwhile, upgradation and facelift projects at many of these listed sites are already on; some such as Red Fort and Qutub Minar even nearing completion”.

#### Status of ‘Adopt a Heritage’ scheme

Many of these monuments were opened up for adoption in late 2017 under the Ministry of Tourism’s Adopt a Heritage scheme. The Red Fort was adopted by the Dalmia Group, while the Qutub Minar and the Ajanta Caves were adopted by Yatra Online. But the momentum of the scheme has slowed down since, and only 11 MoUs have been signed so far.

# What caused weekend flooding outside Mumbai; what can be done?

KAVITHA IYER

MUMBAI, JULY 28

THE EASTERN part of the Mumbai Metropolitan Region (MMR) was inundated over the weekend after the townships of Kalyan, Ulhasnagar, Murbad and Ambemath all received around 300 mm rain in the 24 hours ending 8 am on July 27. Almost exactly a year earlier, the twin satellite towns of Vasai-Virar had been all but cut off from Mumbai for two days as floods snapped rail and road links.

The MMR, which sprawls over more than 10 times the geographical area of Mumbai, is dotted by semi-rural areas and municipalities that sometimes serve as dormitory townships for India’s financial capital. What makes this coastal urban agglomeration prone to flooding of the kind seen in Thane district over Friday and Saturday?

#### Reckless construction

Many of Mumbai’s satellite towns are located along the Kalu, Ulhas, Waldhuni, and Bhatsa rivers that shimmy down the MMR,

passing through thickly populated areas including Ulhasnagar, Titwala, Badlapur, Vithalwadi, and Ambemath. All these areas have seen a massive spurt in construction activity over the past two to three decades — and almost all these rivers have the problems that come with unplanned urbanisation: encroachments, illegal sand dredging, dumping of effluents, and construction activity on their floodplains.

A March 2015 study prepared for the Mumbai Metropolitan Region Development Authority (MMRDA) reported that forest cover in the MMR had fallen from about a third of the total area in 1987 to 21% in 2015. Wastelands, floodplains, mangrove areas, all have seen construction activity. Saturday’s overhead images from Naval choppers showed the Mahalaxmi Express marooned in what seems to be the floodplains of the Ulhas river. Railway officials say the line was originally a good distance away from the river’s buffer areas, but unplanned construction along both banks has rendered the tracks vulnerable to submergence when the river is in spate, with the city’s drains emp-



tying into the railway areas simultaneously.

#### Worst-affected rivers

The Mithi in spate caused much of the havoc on July 26, 2005, when a cloudburst dumped 944 mm of rain on Mumbai within a span of 24 hours; the overflowing Ulhas is likely to be blamed for parts of Ulhasnagar going under on Friday evening and Saturday.

Picnickers at a resort on its banks had to be rescued. The river passes through Badlapur and Vangani, where the dramatic

rescue of train passengers took place.

The winding Ulhas flows 120-plus km from its source in the Sahyadris to the Arabian Sea via Vasai creek, passing the picturesque Karat and Neral regions, and receiving waters from as far as the Palasdhari dam, the Poshir river, Chikoli dam, Barvi dam, before merging with the confluence of the Bhatsa and Kalu rivers. Multiple areas along its banks — Shahad, Ambivali, Dombivali, Kongaon, Mothagaon, Ambemath, Ulhasnagar and Badlapur — were affected on Friday and Saturday.

The Kalu river’s overflowing waters caused some parts of Titwala to be flooded, while the much less urbanised Vasind-Asangaon area were inundated by overflow from the Bhatsa river.

#### What can be done?

Will cleaning up these rivers reduce the likelihood of floods?

There are over 20 reservoirs/dams within the municipal limits of urban local bodies in the MMR. Modaksagar and Tansa, which serve Mumbai, were already over-

flowing. Villages on the banks of the Vaitarna river had been issued their annual warning over a week back. On Sunday, one floodgate of the Middle Vaitarna Dam, located further north on the Vaitarna river, was opened.

But downstream villages along the banks of these rivers are no longer alone in danger of inundation. As natural adaptation and flood resilient geography is broken down by unplanned construction activity. Holding ponds, mangroves, wetlands, salt pan lands, and other buffers have disappeared. Much of the devastation in Vasai-Virar on the two days of flooding in July 2018 was linked to the choking of the creek areas, and at least some of the latest flood-related damage will be found connected to the upstream damage to the rivers’ ecology.

The 13 west-flowing rivers and their 21 tributaries are important natural floodwater drainage systems for the region. At a wider level, the problem of where the MMR gets its drinking water also comes into play — multiple dams on these rivers are in various stages of construction or planning, in-





WORDLY WISE  
SUGAR SOLVES LOTS OF PROBLEMS,  
THAT'S WHAT I THINK.  
— STEPHEN KING

The Indian **EXPRESS**  
FOUNDED BY  
RAMNATH GOENKA  
BECAUSE THE TRUTH INVOLVES US ALL

# Democratic ambivalence



ASHUTOSH VARSHNEY

Modi, Trump and Bolsonaro are great election winners, but their stance on civil liberties is seen as questionable

## PATIENTS AND VICTIMS

Investigations into faulty hip implants highlight the urgent need for a law to regulate medical devices

LAST YEAR, A series of reports in this paper revealed the traumatic experiences of Indian patients who had received faulty hip implants manufactured by the pharma major, Johnson and Johnson. Another investigation by this paper, last week, has revealed that Johnson and Johnson paid hefty compensations to US patients who had received the defective implants. In India, however, the company has challenged government orders to compensate 4,700 patients who had undergone hip replacement surgeries. The reports also highlight that the story is more than that of corporate negligence. That Johnson and Johnson continues to brazen it out in India has much to do with the regulatory deficit in the country.

The investigations pertain to implants manufactured under two brand names, ASR and Pinnacle. Both products are not in the market currently. Johnson and Johnson recalled ASR from the global market in 2010, while Pinnacle was withdrawn in 2013. But recalling a medical device is not like recalling a consumer product. Defective implants can cause crippling pain — even death. Patients who receive such implants need regular monitoring. In several countries, registries track the health of such patients. In fact, Johnson and Johnson's recalling of ASR owes to the more than 15 warnings, between 2007 and 2009, issued to it by the Australian Joint Registry (though the company describes its decision as "voluntary"). Pinnacle was pulled out of the market after a flurry of lawsuits in the US alerted the country's Food and Drug Administration (FDA) about the device's defects. In India, in contrast, regulators were slow to react. Maharashtra's FDA red-flagged ASR a few months after Johnson and Johnson withdrew the product from the global market. But it took another year for the Central Drugs Standard Control Organisation to ban the import of ASR. Another year went by before the drug regulator issued an advisory to orthopaedic surgeons asking them to not implant ASR. These delays are significant because last year, Johnson and Johnson told a Union Ministry of Health and Family Welfare (MoHFW) expert committee that it cannot trace as many as 3,600 patients who underwent surgeries involving the faulty implant. That India did not have a joint registry when these surgeries happened has compounded the problem. The want of a registry has also come in the way of ascertaining the damage caused by Pinnacle. Johnson and Johnson claims that it has no adverse reports of the device in the country. However, reports in this paper have highlighted the trauma of at least seven patients with Pinnacle implants.

In 2017, the MoHFW issued the Medical Devices Rules. However, the country's base legislation on implants continues to be the Drugs and Cosmetics Act, 1940, which does not have the scope to cover most modern devices, including hip implants. The Indian orthopaedic device market is valued at over 450 million dollars and is expected to grow by 30 per cent per year till 2025. The investigations into faulty hip implants bring out the urgent need for a law to regulate medical devices.

## SWEET START

Not hiking FRP for sugarcane is welcome. Transparent pricing formula, freedom for farmers to sell to any mill is way ahead

THE NARENDRA MODI government has done well not to hike the fair and remunerative price (FRP) for sugarcane in the ensuing 2019-20 crushing season from October. The FRP has been retained at the current level of Rs 275 per quintal, linked to a basic sugar recovery of 10 per cent from cane, despite Maharashtra state elections that are due in just over two months. The decision is clearly an acceptance of ground reality, wherein mills are struggling to pay even the existing FRP. As on July 15, Maharashtra mills had cane arrears of Rs 805.76 crore, against the total FRP payments of Rs 23,173.29 crore for the 2018-19 season. It is even worse in Uttar Pradesh, where out of the cane worth Rs 33,046.76 crore bought at the state government's "advised" price (SAP) of Rs 315-320 per quintal — almost equal to the Centre's FRP at an average sugar recovery of 11.48 per cent for this season — mills have paid only Rs 24,535.65 crore till July 25.

At the root of mounting cane dues is politics of a destructive kind. Fixing cane prices totally out of sync with sugar realisations benefits neither mills nor farmers. Mills are supposed to pay the FRP (or SAP) within 14 days of cane delivery. But that requires access to working capital. Banks normally extend cash credit up to 85 per cent of the value of sugar stocks. That, at present ex-factory prices of Rs 31.5 per kg and 11.5 per cent sugar recovery, works out to Rs 308 per quintal of cane. Moreover, mills can use only about 85 per cent of this borrowed money to fund cane purchases and the rest for meeting other working expenses. It means that mills today cannot afford to pay more than Rs 262 per quintal. Farmers are better off getting this price immediately rather than not being paid at all. Politicians may earn brownie points by announcing high cane prices. But how does it help, if these only lead to unpaid dues even at the end of the season.

Not hiking the FRP is a good start; so is the move to create a four million tonnes (mt) buffer stock on which the Centre will bear the interest and storage costs. Given record estimated closing stocks of 14.5 mt for September 30, this should at least help prices from falling further when the new crushing season begins. But the Modi government should go further and push states — at least UP, Maharashtra and now Karnataka, where the BJP is in power — to implement the Rangarajan Committee formula, of paying farmers 70 per cent of the total revenues of mills from sale of sugar and primary byproducts (molasses, bagasse and press mud) as cane price. A transparent pricing formula, combined with freedom for farmers to sell to any mill sans any cane area reservation, should be the path forward.

DOES DEMOCRACY CONTAIN within itself the seeds of its own weakening? Does it have an inner adversary? These questions have long agitated the minds of political thinkers. Given what is happening in the US, Brazil and India — all producing stunning election victories in recent times — it is time to pay attention to the internal paradoxes of democracies.

A brief history of ideas would be in order. Some of the democratic questioning goes all the way back to the ancient city-states of Greece, but let us begin with the 1830s. That is when democracy, after its modern birth in the United States a few decades earlier, began its political spread in Europe. Franchise — or who could vote — was the big issue. By the 1830s, the US had already granted the right to vote to all adult white males, amounting to nearly 40 per cent of the population. With franchise at 18 per cent, Britain was considerably behind. In the 1860s, when Britain debated whether franchise should be extended, John Stuart Mill, one of the most prominent British voices of the time and a father of modern liberalism, argued, "I regard it as wholly inadmissible that any person should participate in the suffrage without being able to read, write and, I will add, perform the common operations of arithmetic... Universal teaching must precede universal enfranchisement."

India's debates, six to eight decades later, went against Mill. On how to think about democracy, the most decisive voice was Jawaharlal Nehru's. Labelled as an incorrigible elitist in power circles today, Nehru, in fact, defended universal franchise on the premise that "each person should be treated as having equal political and social value". He did not trust the elite to understand and represent subaltern interests. Ambedkar held a similar view, and thus was born the idea that even though India was a mere 17-18 per cent literate in 1947, the poor and illiterate masses had the right to vote. Mill thought giving voting rights to the uneducated would undermine democracy; Nehru and Ambedkar believed the opposite. Disenfranchising the plebian voices would cripple democracy.

Though some polities, especially a few American states, continue to have severe voter registration requirements that effectively disenfranchise the poor, universal franchise is now a worldwide democratic norm. Modern democracy is inconceivable without elections. But one should briefly pause to consider

Political analysts all over the world understand the magnitude of Modi's electoral success. But they are also asking: How does his regime perform on civil liberties — on freedom of expression, religious practice and association? And is he, or his party, by any chance interpreting their electoral victory as a mandate to restrict civil freedoms? If so, then electoral democracy might well become the inner adversary of citizens' freedoms. It will be one dimension of democracy versus another, as the electoral triumph is allowed to ride roughshod over the democratically desirable freedoms.



IN GOOD FAITH  
AAKASH SINGH RATHORE

FEMINIST THEOLOGIANs have long held that male depictions of gods serve to reinforce patriarchy. This elicits the question: Do goddesses serve in any way to subvert patriarchy?

In Mary Daly's classic, *Beyond God the Father*, the feminist (Catholic) theologian examined religion as a major cause of women's repression over the last 3,000 years. Daly's work exposed the foundational misogyny in religion which continues to flourish. Daly made this claim despite the long-standing theological stance that God of the Abrahamic religions is unsexed. The Catechism of the Catholic Church, for example, states: "God is neither man nor woman: He is God". God's gender ought to be understood as figurative.

But when we turn to symbolism, ritual and informal practice, a different story emerges; one where God is gendered, where incarnate God — the son — or prophets or deified persons, are also male. Philosophies, religious symbols, juridical norms and other ideas stabilise and justify patriarchal dominance and attribute it to inherent natural reasons and not to mere social causes. Beyond merely naturalising patriarchy, the maleness/masculinity of

## THE DIVINE PATRIARCHY

Masculinity of gods reinforces gender inequality. Goddesses could subvert it

gods fixes it into the cosmic order.

RW CONANT's 1904 book, *The Manly Christ*, is an obscene testimony to this. Conant asserts the manliness of Jesus in order to make the increasingly "feminised" religion, as he referred to it, more attractive to the real men of the working classes. As he stresses: "Christ stands for the highest type of a strong, virile man, and there was nothing effeminate about him."

We could also look at the images of masculinity, sex, and the body in Buddhism. An example is available in the *Ambattha Sutta* from the Dingha Nikaya in the Pali canon. The Brahmin student Ambattha is sent by his famous teacher Pokkharasaati to find out if the acclaimed Gautama is really a great man. He should particularly learn whether Buddha bears the 32 physical bodily characteristics of a perfect man. Ambattha goes to meet Buddha, and behaves insultingly toward him, arrogating himself to a higher position as a Brahmin over the lower-born Sakyas. Buddha argues systematically that Kshatriyas are actually higher born than Brahmins by social convention, but that he himself considers social convention less important than conduct and wisdom. Buddha thus humbles the excessive pride of Ambattha and the student returns to his teacher to narrate what has occurred. Pokkharasaati is angered and goes

himself to confront Buddha. However, upon encountering Buddha and seeing that indeed he bears all the physical marks of a perfect man, he ends up a convert.

Another masculinised body is that of Hanuman. This god's manliness is palpable in the context of the highly masculine practice of wrestling within *akhars*, which always and everywhere occurs under the auspices of Hanuman murtis. Young men, always men, revere and model themselves upon the god. A crucial part of this emulation lies in the celibacy. In this framework, the seductive and thus enervating feature of women's bodies, and feminine wiles, plays a role.

But if, as it seems, the male-sexed bodies of gods serve to reinforce patriarchy, do goddesses serve to subvert it?

Some powerful strands of feminism in the West assume so. Interventions in Indian feminism, however, generally disagree. Rajeswari Sundar Rajan, for example, in her essay 'Is the Hindu Goddess a Feminist?', throws into doubt the emancipatory value of the Stree-Shakti trope. Everyone seems to agree, however, that powerful goddesses do offer potential opportunities for anti-patriarchal action.

The writer is visiting professor of philosophy at Jawaharlal Nehru University

## FREEZE FRAME

## E P UNNY



## JULY 29, 1979, FORTY YEARS AGO

SWEARING IN A NINE-MEMBER COALITION ministry — the first at the Centre — came into being when Charan Singh, prime minister, and his colleagues were sworn in by President N Sanjeeva Reddy. The ceremony took place in the Ashoka Hall of Rashtrapati Bhavan, in an atmosphere filled with perfume, thanks to Raj Narain who went round with a bottle of "attar". Seven of the Cabinet members, including Charan Singh, are from the Janata (S) Party and P L Kaushik is a Socialist. Y B Chavan was the lone Congress nominee who took the oath of office and secrecy. The appointment of six others of his party, which had been announced in the morning, was cancelled at night. A Rashtrapati Bhavan communique issued in the night designated Chavan deputy prime minister in charge of the home ministry.

### GOVT WON'T LAST

THE LEADER OF the Janata Parliamentary Party, Jagjivan Ram, said the Charan Singh government would not last long. Speaking at the national executive meeting of the Janata Party, the former deputy prime minister said Charan Singh's group was in a minority. He had forged "illogical alignments which could not last long". Both Jagjivan Ram and the Janata Party chief, Chandra Shekhar, asserted that their party would be able to eventually

prove its majority in the Lok Sabha.

CONGRESS UNCERTAIN CHARAN SINGH MUST have got the message: The contradictions in the combination he heads have come to the fore earlier than expected. The hitch that cropped up in Congress nominees not taking oath of office was not over any programme. The party simply had too many claimants. Even Y B Chavan would have stayed back but for the fact that the Congress did not want the impression to go round that the alliance with the Janata (S) was off. No one doubts that the situation created within the Congress over the distribution of ministries will evade solution for long.



WHAT THE OTHERS SAY

“The special counsel [Robert Mueller] offered no startling new material, but his testimony was nonetheless valuable. ”  
— THE GUARDIAN

The digital identification parade

NCRB’s proposed Automated Facial Recognition System impinges on right to privacy, is likely to target certain groups



AAYUSH RATHI AND AMBIKA TANDON

THE NATIONAL Crime Records Bureau recently issued a request for proposals for the procurement of an Automated Facial Recognition System (AFRS). The stated objective of the AFRS is to “identify criminals, missing persons/children, unidentified dead bodies and unknown traced children/persons”. It will be designed to compare images against a “watchlist” curated using images from “any [...] image database available with police/other entity”, and “newspapers, raids, sent by people, sketches, etc.” The integration of diverse databases indicates the lack of a specific purpose, with potential for ad hoc use at later stages. Data sharing arrangements with the vendor are unclear, raising privacy concerns around corporate access to sensitive information of crores of individuals.

While a senior government official clarified that the AFRS will only be used against the integrated police database in India — the Crime and Criminal Tracking Network and Systems (CCTNS) — the tender explicitly states the integration of several other databases, including the passport database, and the National Automated Fingerprint Identification System. This is hardly reassuring. Even a targeted database like the CCTNS risks over-representation of marginalised communities, as has already been witnessed in other countries. The databases that the CCTNS links together have racial and colonial origins, recording details of unconvicted persons if they are found to be “suspicious”, based on their tribe, caste or appearance. However, including other databases puts millions of innocent individuals on the AFRS’s watchlist. The objective then becomes to identify “potential criminals” — instead of being “presumed innocent”, we are all persons-who-haven’t-been-convicted-yet.

The AFRS may allow indiscriminate searching by tapping into publicly and privately installed CCTVs pan-India. While facial recognition technology (FRT) has proliferated globally, only a few countries have systems that use footage from CCTVs installed in public areas. This is the most excessive use of FRT, building on its more common implementation as border technology. CCTV cameras are already rife with cybersecurity issues, and integration with the AFRS will expand the “attack surface” for exploiting vulnerabilities in the AFRS. Additionally, the AFRS will allow real-time querying, enabling “continuous” mass surveillance. Misuse of continuous surveillance has been seen in China, with the Uighurs be-

ing persecuted as an ethnic minority. FRT differs from other biometric forms of identification (such as fingerprints, DNA samples) in the degree and pervasiveness of surveillance that it enables. It is designed to operate at a distance, without any knowledge of the targeted individual(s). It is far more difficult to prevent an image of one’s face from being captured, and allows for the targeting of multiple persons at a time. By its very nature, it is a non-consensual and covert surveillance technology.

Potential infringements on the right to privacy, a fundamental right, could be enormous as FRT allows for continuous and on-going identification. Further, the AFRS violates the legal test of proportionality that was articulated in the landmark *Puttaswamy* judgment, with constant surveillance being used as a strategy for crime detection. Other civil liberties such as free speech and the right to assemble peacefully could be implicated as well, as specific groups of people such as dissidents and protests can be targeted.

Moreover, facial recognition technology has not performed well as a crime detection technology. Challenges arise at the stage of input itself. Variations in pose, illumination, and expression, among other factors, adversely impact the accuracy of automated facial analysis. In the US, law enforcement has been using images from low-quality surveillance feed as probe photos, leading to erroneous matches. A matter of concern is that several arrests have been made solely on the basis of likely matches returned by FRT.

Research indicates that default camera settings better expose light skin than dark, which affects results for FRT across racial groups. Moreover, the software could be tested on certain groups more often than others, and could consequently be more accurate in identifying individuals from that group. The AFRS is envisioned as having both functionalities of an FRT — identification of an individual, and social classification — with the latter holding significant potential to misclassify minority communities.

In the UK, after accounting for a host of the issues outlined above, the Science and Technology Committee, comprising 14 sitting MPs, recently called for a moratorium on deploying live FRT. It will be prudent to pay heed to this directive in India, in the absence of any framework around data protection, or the use of biometric technologies by law enforcement.

The experience of law enforcement’s use of FRT globally, and the unique challenges posed by the usage of live FRT demand closer scrutiny into how it can be regulated. One approach may be to use a technology-neutral regulatory framework that identifies gradations of harms. However, given the history of political surveillance by the Indian state, a complete prohibition on FRT may not be too far-fetched.

Rathi and Tandon are researchers at the Centre for Internet and Society



Suvajit Dey

Tom & Jerry in West Asia

Like the iconic cartoon mouse, Iran is using brinkmanship, asymmetrical military tactics against the US



RAMIN JAHANBEGLOO

THE SEIZURE of an oil tanker bearing the British flag by the naval forces of Iran’s Islamic Revolution Guards Corps (IRGC) on July 21 is indicative of the ongoing tension between Iran and the US and its allies. Through this move, the Iranian authorities have shown once again that they are determined to emphasise Iran’s hegemonic role in the Middle East and to strongly underline Iran’s regional power in the Strait of Hormuz and the Persian Gulf. As tensions have risen between the US and Iran over recent months, the absence of a diplomatic back channel to defuse incidents and potential blow-ups is being felt. We can add to this the fact that the US has not taken any visible retaliatory action, denying Tehran an opportunity for the showdown it seems to want.

General Kenneth F McKenzie Jr, the US Central Command commander gave an explanation for this measured American approach by saying: “We shouldn’t fall into the trap of some form of overreaction. So our response is going to be very calm, taken in concert with the international community.” But the US-Iran cat and mouse game has been analysed on the Iranian side as a Tom and Jerry cartoon, where the mouse appears cleverer and more astute than the cat. As a matter of fact, during a gathering on May 23 in Tehran, Iran’s Supreme Leader Ayatollah Ali Khamenei invoked the US-Iran tensions by making an allusion to the Hanna-Barbera classic. “The US has committed all kinds of animosity to hit the Islamic Republic and has plotted various political, economic, military and propaganda schemes,” Khamenei said. “All their plots have failed — just like Tom from the well-known Tom and Jerry cartoon

— and they will fail again in the future.” Iran continues a tactical escalation, shooting down a US surveillance drone last month, attaching mines to tankers and now seizing ships in the Strait of Hormuz, while Donald Trump is clearly avoiding military confrontation with Iran, especially as he heads into an election year.

Consequently, Iran wants to show off its military capacities, at home and abroad, to demonstrate that it can get around US sanctions and continue to develop its hegemony in the region. This is why, from January to July, Iran has been conducting drone exercises and has said that it even monitored the movements of a US aircraft carrier. On July 10, Iranian drones reportedly were used against a Kurdish dissident group in northern Iraq, after Iran accused the group of killing members of the Islamic Revolutionary Guard Corps. The new IRGC drone was used three weeks after Iran downed a sophisticated American drone over the Gulf of Oman.

Iranians have also been helping the Houthi rebels to launch drone attacks on Saudi Arabian airports near the Yemen border. Taken as a whole, the Islamic regime’s drone technology and its immediate use by the proxies of Iran, like the Lebanese Hezbollah and the Houthis, show that the authorities in Tehran have the military ability to threaten the US and its allies. This shows clearly that Iran’s military footprint is growing across the Middle East.

Iran’s military actions and the silence of the American cat, show that the Trump administration’s weapon of choice is still hard economic sanctions, while Tehran’s only remaining option is using its wide array of asymmetrical military capabilities through its Iranian Revolutionary Guards. As a result, it is clear that President Trump is following the same policy that he used in the showdown with North Korea, China and other countries. However, Iran proves to be a tougher challenger and as in the case of Jerry the mouse, Iranian regime is not an easy enemy to defeat. Iran is clearly willing to resort to violent means and push the situation to

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the brink of war, even though the balance of power is largely in the US’s favour.

This is the main reason why the European countries, who have been at odds with Trump and his administration over the US withdrawal from the Joint Comprehensive Plan of Action (JCPOA), reacted strongly against Tehran’s decision to start suspending clauses of the agreement and taking steps to increase uranium enrichment levels and reserves. This said, the Iranian leaders will certainly not return to the negotiating table to reach a new deal on Iran’s nuclear programme and its regional policies. Iranians feel stronger in their mouse and cat game, especially when they are backed by the Russian dog.

Actually, a few days ago, the Russian foreign ministry urged the remaining signatories to the JCPOA to continue cooperating and help save the agreement. However, while Russia continues blaming Washington for the failure of the Iran nuclear agreement, some Chinese customers are still buying liquefied petroleum gas (LPG) from Iran. China accounted for 3,46,000 tonnes, or 80 per cent, of Iran’s LPG exports in May, since Iranian supplies have been among the cheapest in the world as customers from Japan to South Korea turned away from doing business with the country following the US’s sanctions.

In the iconic American cartoon Tom and Jerry, Jerry always gets the upper hand. But this situation might not last long for the Iranian mouse, especially in the absence of a substantive and successful diplomacy between the two countries. Evidently, the Boltons and Pomepos of the Trump administration will not always be silent over the American president’s decision to call off retaliatory air strikes over Iran’s downing of a US surveillance drone. As for Trump, he cannot continue saying “America first,” without doing whatever it takes, however destructive, to show that Tom the cat is not the loser of the game.

The writer is professor-vice dean, Jindal Global University

VIEW FROM THE NEIGHBOURHOOD



A weekly look at the public conversations shaping ideas beyond borders — in the Subcontinent. Curated by Aakash Joshi

BATTING FOR TRUMP

DAWN, WHICH HAS otherwise been fairly critical of US President Donald Trump on his erratic foreign policy stances, Twitter policy announcements, et al, seems to have changed its tune somewhat in the aftermath of Prime Minister Imran Khan and army chief Qamar Bajwa’s visit to the White House. In its July 24 editorial, the newspaper appears to welcome Trump’s offer to mediate the Kashmir dispute. It is also somewhat flippant in its dismissal of New Delhi’s denial of the US president’s assertion regarding Narendra Modi’s offer — “He actually said would you like to be mediator or arbitrator?” said Mr Trump, quoting the Indian leader”.

While maintaining that Trump’s diplomacy has had mixed results — the success with North Korea on the one hand, the escalation with Iran on the other — the editorial contends that “Mr Trump’s maverick tactics may just be what the Kashmir issue needs”. There is an element of balancing, of not taking a clear position in the editorial. It seems to stand for a bilateral solution, or at best a trilateral one where Kashmir and its people are a separate party, but also calls for multilateral interference: “At the end, it is Pakistan, India and the Kashmiris who will have to take the final decision to resolve this over seven-decade-old imbroglio. But a lit-

tle friendly ‘push’ from powerful global actors may help the stakeholders reach a mutually acceptable solution. Moreover, Indian rigidity has left little hope on the bilateral front, especially under Mr Modi’s watch, as Delhi keeps harping on about ‘terrorism’, without earnestly responding to Pakistan’s offers for dialogue. Whether it is the US, the UN, or other global players, clearly a multilateral framework may be able to provide a conducive atmosphere for the resolution of the Kashmir issue.”

THE COST OF DINNER

MUHAMMAD AMIR RANA, a security analyst and columnist for *Dawn* writes on July 28 of Islamabad and Rawalpindi’s task after the successful visit by the country’s leader(s) to Washington. Rana first points out the significant diplomatic gains from the visit: “The country is set to gain in the whole process as India has failed to develop its relevance in the Afghan peace process. On this ground alone, Pakistan’s establishment considers it a major achievement. Similarly, the US offer of mediation over the Kashmir issue has put pressure on Indian Prime Minister Narendra Modi. It has happened at a time when the Trump administration was not comfortable with India’s recent multibillion-dollar deals with Russia, and trade tensions between the

two nations were rising.”

While India being sidelined in Afghanistan certainly benefits Pakistan, it must now deliver on the expectations it has generated for the US. The country’s role in bringing the Taliban to the negotiating table has certainly been welcomed in Washington. But now “to keep this momentum, the government has to deliver on Afghanistan. The probability of direct talks between the Taliban and Kabul would be one challenge, but influencing the former to commit to a lasting ceasefire could prove another daunting task.”

Another important political success for Imran Khan actually came before the dinner. M Bilal Lakhani writes in *The Express Tribune* on July 28 that “Khan’s packed *jalsa*... enabled him to defuse the primary attack against his legitimacy, on being selected, with Mike Pompeo, the American Secretary of State, commenting on his rockstar reception. The *jalsa* strengthened Imran’s hand as we walked into the White House, the morning after.”

MOB AND STATE

THE MOB, AND its violence in the name of justice, is an issue that seems to resonance across South Asia. Badiuzzaman Bay writes in *The Daily Star* on July 27 on the issue of

mob violence and punishment in Bangladesh but his arguments and observations will certainly find resonance in both India and Pakistan. Here’s the immediate context: “As of July 23, seven people died and at least 35 were injured in mob beatings sparked off by a rumour about human heads being collected—yes, you heard it right—for the construction of Padma Bridge, the dream project of the Awami League government.”

Bay lays some of the blame for “mob justice” on the failure of the state and its legal institutions. But he traces a curious and disturbing form of assertion in such violence as well: “To understand the gravity of this loss, one only needs to take a look at any of the video clips that are now circulating through the social media, showing the lynching of Taslima Begum Renu in Badda, on July 20. It was nauseating to watch as an angry crowd gathered to “punish” the single mother-of-two for her rumoured attempt to kidnap a child. Only, she didn’t do it. But at that rare empowering moment in their life, those people were judge, jury and executioner at the same time. And the world was suddenly reduced to a choice between a weapon and a shield.”

What’s worse, in their mind, the people that form the mob “were doing the right thing”.

