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**DAILY NEWS ANALYSIS**

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## **FOREWORD**

We, at Team Vedhik is happy to introduce a new initiative - "Daily Current Affairs\_The Hindu" compilations to help you with UPSC Civil Services Examination preparation. We believe this initiative - "Daily Current Affairs\_The Hindu" would help students, especially beginners save time and streamline their preparations with regard to Current Affairs. A content page and an Appendix has been added segregating and mapping the content to the syllabus.

It is an appreciable efforts by Vedhik IAS Academy helping aspirants of UPSC Civil Services Examinations. I would like to express my sincere gratitude to Dr. Babu Sebastian, former VC - MG University in extending all support to this endeavour. Finally I also extend my thanks to thank Ms. Shilpa Sasidharan and Mr. Shahul Hameed for their assistance in the preparing the compilations.

We welcome your valuable comments so that further improvement may be made in the forthcoming material. We look forward to feedback, comments and suggestions on how to improve and add value for students. Every care has been taken to avoid typing errors and if any reader comes across any such error, the authors shall feel obliged if they are informed at their Email ID.

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# IMD forecast predicts above average rainfall in September

## Active spells in recent years is due to La Nina conditions

**SPECIAL CORRESPONDENT**  
NEW DELHI

For a third year in a row, India is expected to receive more than its usual quota of rain in September, a month that usually marks the retreat of the monsoon's four-month sojourn over the country.

"The rainfall averaged over the country as a whole during September 2022 is most likely to be above normal or greater than 9% of the long period average (LPA)," the IMD said in its updated forecast.

The LPA of rainfall over the country during the month of September based on data of 1971-2020 is about 167.9 mm.

In 2020, India saw 9% more rain, with August registering 27% more rain and September 4% more than its



This year, the monsoon is already in surplus by about 6%, rainfall data show.

usual quota.

The rainfall over the country as a whole in 2021 was 1% less than normal, though rainfall in September was a remarkable 35% above what is usual.

This year, the monsoon is already in surplus by about 6%. Three years of above normal rain in a block of

four years is unprecedented in more than a century of IMD's record keeping, the data suggest.

Why September has taken a shift towards excess rain is yet unknown, say meteorologists, though the active spells in the recent years is due to an active La Nina which began around September 2020. La Nina, marked by cooler temperatures in the Central Pacific, usually means heavier monsoonal rains.

"Currently, La Nina conditions are prevailing over the equatorial Pacific region. The latest forecast indicates that the La Nina conditions will continue up to the end of the year. Other climate models are also indicating continuation of La Nina conditions during the upcoming season," the IMD added.

# 'Chinese investment' in sea cucumber farm kicks off concerns in Sri Lanka

Northern fishermen see the govt. thrust on commercial aquaculture as a threat

MEERA SRINIVASAN  
COLOMBO

Citing media reports of a Chinese firm investing in a sea cucumber farm in Pungudutivu, off Jaffna Peninsula in northern Sri Lanka, local fishermen have raised concern over its potential impact on their livelihoods, marine ecosystem, and land.

"We recognise the need for investment in our war-affected region, but the sea cucumber farms are mainly for exports. They will only bring more harm than benefit for those of us living here," said Annalingam Annarasa, president of the Jaffna Fisheries Federation. The commercial ventures, they fear, could adversely affect the local marine ecology on which their livelihoods rely.

Small-scale artisanal fishermen like him see the government's recent push on aquaculture as the latest blow to their livelihoods, already precarious due to the relentless bottom-trawling by Indian fishermen in their seas for years, and the drastic, nearly four-fold increase in kerosene price last month.

In 2021, Sri Lanka exported about 336 tonnes of sea cucumber to China, Singapore, and Hong Kong, according to local media reports. Desperate to find dollars to stabilise its battered economy, the Sri Lanka government appears to



**Mixed feelings:** Though they recognise the need for foreign capital, farmers feel in this case it will only do them harm. ■ AP

have identified potential for both foreign investment and exports in breeding and selling the sausage-shaped marine animal considered a delicacy in China and Southeast Asia. Locals do not consume sea cucumbers.

In June this year, the Cabinet approved a proposal for a large-scale commercial sea cucumber project spanning 5,000 acres in Jaffna, Mannar, Kilinochchi and Batticaloa districts in the north and east, after Sri Lanka earned "a significant amount" of foreign exchange by exporting sea cucumbers. The proposal came from Fisheries Minister Douglas Devananda, who represents Jaffna district in Parliament. The National Aquaculture Development Authority functioning under his Ministry is leading the initiative.

"We need both investment and technology in the north to cultivate sea cucum-

bers. I have been asking India for five to six years but have not had any response. We must explore other options, right? We are only talking to a Chinese firm, no project has been finalised yet," Mr. Devananda told *The Hindu*, adding he will "never allow" any threat to India's security concerns. Pungudutivu, where the farm is being proposed, is near Nainativu, which is one of the three islands where Sri Lanka had cleared a Chinese renewable energy project last year. However, with India objecting to it, citing the project's proximity to its southern coast, Sri Lanka cancelled the venture, instead agreeing to accommodate an Indian project at the three sites.

## Jobs or conflict?

The sea cucumber projects will "certainly bring jobs locally," the Minister further

said, ensuring the project will not affect local fishermen.

When contacted, the Chinese Embassy said it had no information yet on a Chinese firm investing in a sea cucumber farm in the small island off Jaffna Peninsula.

"It could be a private company negotiating on a commercial basis," a spokesman said.

However, pointing to an existing joint venture between a Chinese firm and Sri Lanka, in the coastal village of *Ariyalai* in Jaffna, the Chinese official said "it has created about 1,000 jobs for nearby villages. Last year, it provided 5 lakh sea cucumber seedlings to local farmers for free and \$1 million was brought in."

Another Chinese project in the neighbouring Kilinochchi district faced stiff opposition last year from local fishermen who objected to the farm fencing off some land adjoining the sea, restricting access to even local fishermen.

"We agitated since they were not consulting us, and we noticed that while the firm was promoted a hatchery, they were actually fishing the sea cucumbers from our waters. That sort of large catch on a regular basis can really damage our marine resources," said K. Baheerathan of the Koutharimunai Fishermen's Association.

# The NPT is beginning to look shaky

Sustaining it requires facing up to today's political realities such as the growing rivalries in a multipolar nuclear world



RAKESH SOOD

The Tenth Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) concluded last week in New York. Marking 52 years of a treaty that every speaker described as the 'cornerstone of the global nuclear order' – it was originally planned for its 50th year for 2020, but the conference was delayed due to COVID-19 – it should have been a celebratory occasion, yet, the mood was sombre. And after four weeks of debate and discussion, the delegates failed to agree on a final document.

## NPT's success and weakness

To manage the disappointment, some staunch believers claimed that the success should not be defined in terms of a consensus outcome! It is true that since 1970, when the NPT entered into force, only four of the 10 review conferences (in 1980, 1990, 2000 and 2010) have concluded with a consensus document, the review years were: 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015, 2022. Ironically, even the critical 1995 Review Conference that decided to extend the NPT into perpetuity, broke down weeks later over the review process.

However, there was one key difference in 2022. In the past, the divergences were over Iran, Israel, West Asia or between the nuclear haves and nuclear have-nots. The three depositary states (the United States, the United Kingdom and the U.S.S.R./Russia) were always on the same page. The difference in 2022 was that it pitched Russia against the West; it was the inability to find language to address the nuclear safety crisis at the Zaporizhzhia nuclear power plant in Ukraine, under Russian occupa-

tion since March, that ultimately led to the failure.

The NPT was negotiated during the 1960s to reconcile three competing objectives – controlling the further spread of nuclear weapons beyond the P-5 countries (the U.S., the U.S.S.R., the U.K, France and China) that had already tested; committing to negotiating reductions of nuclear arsenals leading to their elimination; and sharing benefits of peaceful applications of nuclear science and technology. The first was strongly supported by the nuclear-haves; the latter two were demands made by the nuclear have-nots.

Over the years, the non-proliferation objective has been achieved in large measure. Despite apprehensions that by the 1980s, there would be close to 25 nuclear powers, in the last 50 years, only four more countries have gone on to test and develop nuclear arsenals – India, Israel, North Korea and Pakistan (South Africa developed nuclear weapons but the apartheid regime destroyed them and joined NPT in 1991 before relinquishing power to majority rule). After the end of the Cold War and the break-up of the U.S.S.R. in 1991, non-proliferation remained a shared priority for the major powers and the International Atomic Energy Agency, set up originally to promote international co-operation became better known as the non-proliferation watchdog.

Progress on the other two aspects took a back seat; no meaningful discussions or negotiations on nuclear disarmament have ever taken place in the NPT framework. In fact, in the early 1980s, there was a growth in nuclear arsenals. Arms control talks between the U.S. and the U.S.S.R./Russia did take place and the two countries did succeed in bringing down their collective arsenals from a high of nearly 65,000 in the early 1980s to less than 12,000 warheads. But this process too has ground to a halt.

The first signal was the U.S. withdrawal from the 1972 Anti-Ballistic Missile (ABM) Treaty in 2002



GETTY IMAGES/STOCKPHOTO

on the grounds that it unduly constrained its missile defence activities. Limits imposed by the ABM Treaty had been a critical element in creating mutual vulnerability as a means of underwriting deterrence stability. It was a unipolar world with the U.S. as the dominant power. Russia gradually responded by embarking on its nuclear modernisation.

In 2019, the U.S. notified Russia of its decision to quit the 1987 Intermediate Range Nuclear Forces (INF) Treaty that had obliged both countries to get rid of all ground-launched missiles with a range of 500-5,500 km. The U.S. blamed Russia for cheating on its obligations and pointed out that China's missile developments created new security threats that needed to be addressed. The U.S. was now facing two strategic rivals.

The only surviving arms control treaty between Russia and the U.S. is the New START Treaty that imposes a ceiling on operational strategic nuclear weapons of 700 launchers and 1,550 warheads each. It expires in 2026 and there are no signs of any follow-on discussions.

Attempts by the Donald Trump administration to invite China to join in the arms control process were rejected. Given growing tensions in the Taiwan Strait, any prospects for such talks have only receded.

All that the five nuclear-weapon-states party to the NPT could manage at the conference was a reiteration of the 1985 Reagan-Gorbachev declaration that 'a nuclear

war cannot be won and must never be fought'. The statement remains valid but clearly sounded hollow in the face of growing strategic rivalry between China, Russia and the U.S., rising nuclear rhetoric, and modernisation plans for nuclear arsenals being pursued.

## Nuclear modernisation

While the Joe Biden administration's Nuclear Posture Review is awaited, the U.S.'s 30-year nuclear modernisation programme, intended to provide 'credible deterrence against regional aggression' is already underway. This has been used to justify developing and deploying more usable low-yield nuclear weapons.

Russia (and China too) is developing hypersonic delivery systems that evade missile defences as well as larger missiles that do not need to travel over the Arctic. Also on the cards are nuclear torpedoes and new cruise missiles. Last year, satellite imagery over China revealed that at least three new missile storage sites are being developed. Analysts suggest that China may be on track to expand its arsenal from current levels of approximately 350 warheads to over 1,000 by 2030. Such a dramatic expansion raises questions about whether this marks a shift in the Chinese nuclear doctrine that has relied on a credible minimum deterrent and a no-first-use policy for the last six decades.

Developments in space and cyber domains are blurring the line between conventional and nuclear weapons, leading to nuclear entanglement and rendering command and control systems vulnerable. This, in turn, compresses decision-making time and creates incentives for early use, raising nuclear risk.

At the conference, France, the U.K. and the U.S. wanted to draw a distinction between "irresponsible" nuclear threats of an offensive nature and "responsible" nuclear threats for defensive purposes but Russia (and China) stymied western efforts. When the nuclear have-nots suggested a universal

condemnation of all threats of nuclear use, all five nuclear-haves joined together to resist such moves. This reflects an emerging divide.

## Other treaties, their state

Frustrated by the absence of progress on nuclear disarmament, the nuclear have-nots successfully negotiated a Treaty on the Prohibition of Nuclear Weapons (TPNW, also called Ban Treaty) in 2017 that entered into force in January 2021. All 86 signatories are nuclear have-nots and parties to the NPT. The TPNW creates a new legal instrument and at their meeting in June in Vienna, the TPNW states committed to pushing for 'stigmatising and de-legitimising' nuclear weapons, condemning all nuclear threats and 'building a robust global peremptory norm against them'. Expectedly, the nuclear-haves and their allies ignored the Vienna meeting but will find it increasingly difficult to overlook this political reality as more and more NPT colleagues call their bluff.

The Comprehensive Test Ban Treaty (CTBT) was concluded in 1996 but has yet to formally enter into force because two major powers, the U.S. and China, have yet to ratify it. While it is true that they do observe a moratorium on nuclear testing, modernisation plans could soon run up against the CTBT.

Nobody wants a breakdown of the NPT but sustaining it requires facing up to today's political realities. The rivalries in a multipolar nuclear world create new challenges, different from what the world faced in a bipolar era of the 1960s when the NPT was concluded. Without addressing the new challenges, the NPT will weaken and with it, the taboo against nuclear weapons that has held since 1945.

*Rakesh Sood is a former diplomat who served as Special Envoy of the Prime Minister for Disarmament and Non-proliferation. He is presently Distinguished Fellow at the Observer Research Foundation*

# India to host Quad senior officials' meeting next week

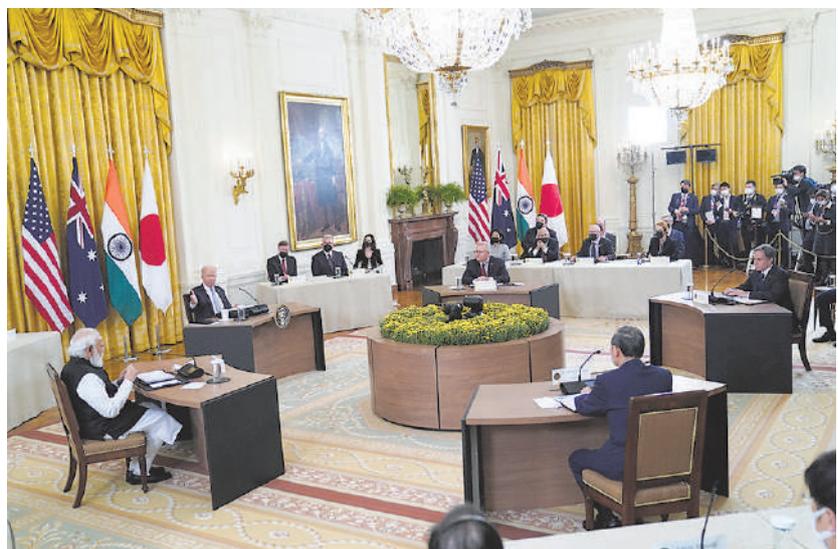
It comes ahead of PM's visit to SCO summit with Russia, China

**SUHASINI HAIDAR**  
NEW DELHI

New Delhi will host an official-level meeting of the Quad grouping with the U.S., Japan and Australia next week, the first such “senior officers meeting” (SOM) to be held since the recent escalation of tensions over the Taiwan Strait.

The Quad SOM meeting, scheduled for September 5-6, is one of a number of meetings with India's Indo-Pacific partners in the week, seen as part of the government's “balancing” moves ahead of the Shanghai Cooperation Organisation (SCO) summit in Uzbekistan in mid-September. Prime Minister Narendra Modi will attend the SCO summit along with leaders of Russia, China, Pakistan, Central Asia and Iran, the first such in-person summit since the COVID-19 pandemic and the beginning of the Ukraine war.

Ministry of External Af-



Prime Minister Narendra Modi, with the leaders of U.S., Japan, Australia, during the Quad summit in Washington. ■ AP/FILE

fairs (MEA) officials will follow the Quad meeting with an India-U.S. 2+2 “inter-sessional” meeting, with U.S. Assistant Secretary of States for South and Central Asia Donald Lu leading the American delegation to discuss bilateral issues. Senior counterparts from the Australian Department of Foreign Affairs and Trade (DFAT) Deputy Secretary Justin Hay-

hurst, and the Director General of the Foreign Policy Bureau in Japan's Ministry of Foreign Affairs (MFA) Keiichi Ichikawa will attend the meetings on Monday and Tuesday, which will review progress in a number of Quad initiatives that were discussed during the Quad summit in Tokyo in May.

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# India to host Quad senior officials' meeting

External Affairs Minister S. Jaishankar and Defence Minister Rajnath Singh will also travel to Tokyo later in the week for an India-Japan “2+2” Ministerial meeting. In addition, Commerce Minister Piyush Goyal will travel to the U.S. for bilateral trade talks from September 5-10, as well as to attend the third Indo-Pacific Economic Forum ministerial meeting (IPEF) in Los Angeles, which is being held in person for the first time since its launch by U.S. President Joseph Biden in May.

The meetings will take place amidst a particularly busy diplomatic calendar, as Bangladesh Prime Minister Sheikh Hasina also begins her state visit to India on Monday.

“I think this is a reflection of the close coordina-

tion and collaboration that we have with our partners, you know, the Quad partners, but also bilateral partners,” said MEA spokesperson Arindam Bagchi, when asked about the flurry of meetings, during a weekly media briefing on Thursday, but declined to confirm the dates.

The officials will take stock of progress on Quad initiatives including the six “leader-level” working groups – on COVID-19 Response and Global Health Security, Climate, Critical and Emerging Technologies, Cyber, Space, and Infrastructure.

Significantly, the intensified engagement with India’s Quad partners will come a week ahead of India’s engagement with the Russia-China led SCO as well.

# G7 agrees to implement price cap on Russian oil

The group plans to deny shipping to oil above the price cap

**SRIRAM LAKSHMAN**

LONDON

The group of seven advanced economies (G7) agreed to implement a price cap on oil exports from Russia at a virtual meeting of their Finance Ministers on Friday. The move is aimed at cutting off a source of financing for Moscow as its invasion of Ukraine continues. With London being a major global centre for maritime insurance, the plan hinges on denying shipping to oil above the price cap.

The group confirmed its “joint political intention to finalise and implement a comprehensive prohibition of services which enable maritime transportation of Russian-origin crude oil and petroleum products globally”, according to a statement from the G7 Finance Ministers.

The actual ceiling price was not announced, with the G7 saying it invites “all countries” to provide input. The initial price cap will be



**Tough posturing:** A file photo of the G7 Finance Ministers. ■ AP

based on a “range of technical inputs” and revisited subsequently as required.

The price cap is being designed, as per the G7, to limit Russia from “profiting from its war of aggression” while limiting the impact on global energy prices. Inflation is already high globally as well as in most of the G7 countries.

For the price caps to work, India and China will likely need to be involved, although India has purchased Russian oil at low or discounted prices after the February 24 invasion of Ukraine, with the government

defending the move on grounds of national interest.

The U.S. has held talks with the government to win support for the oil price caps, including on a visit by U.S. Deputy Treasury Secretary Wally Adeyemo to India at the end of August.

## **Timing of ban**

The G7 is aiming to align the timing of the price cap with an EU ban on seaborne imports of crude oil from Russia, that comes into effect on December 5, and a petroleum products embargo that takes effect on February 5.

# 'India-U.S. inflation differential to back rupee'

## Yes Securities cites faster U.S. inflation

**REUTERS**

MUMBAI

The inflation rate differentials between the U.S. and India suggest that the worst of the rupee's decline may be over, an analyst at Yes Securities said on Friday.

The rupee has depreciated more than 7% against the dollar this year on aggressive monetary tightening by the Federal Reserve to quell inflation. The local currency had touched a record low of 80.12 against the dollar earlier this week, before the Reserve Bank of India (RBI) intervened to arrest its decline, traders said.

U.S. consumer inflation is running at 8.5%, more than four times the Fed's medium-term target. July CPI inflation in India was at

6.7%, above the RBI's tolerance band of 2-6%.

"While there are a number of variables that influence currency moves, when looked at through the prism of the inflation differentials, it seems that the worst for the rupee is behind us," Hitesh Jain, senior VP at Yes Securities, said.

"The inflation differential has turned topsy-turvy... with price pressure in the U.S. of a higher magnitude.

"This trend is projected to sustain for the next 12 months, which effectively places rupee in a comfortable situation," Mr. Jain said, adding that historical data showed inflation differentials tend to have a strong correlation with the currency trajectory.

# Effect of rate increases unclear: Varma

Pace of RBI's interest rate adjustment will depend on the state of the economy, says MPC member

REUTERS  
MUMBAI

The success of the Reserve Bank of India's interest rate increases in controlling inflation is not yet clear, and the pace of rate adjustment will depend on the state of the economy, monetary policy committee (MPC) member J.R. Varma said on Friday.

"If there is robust economic growth, then we would like to accelerate the (inflation) reduction to 4%," Mr. Varma told the Reuters Trading India forum. "But if the economy is struggling, then a slower pace of adjustment would be appropriate."

The RBI raised its policy repo rate by 50 basis points (bps) in August to 5.40%, taking the total increases since May to 140 bps. Its next policy decision is due on Sep-



**Carefully calibrated:** Given the high inflation and weak economy, the real, inflation-adjusted rate may have to be only slightly above the neutral rate, says Varma. ■ PAUL NORONHA

tember 30, with expectations of an increase of less than 50 bps.

By tightening liquidity, the central bank has also pushed interbank interest rates higher within a band, called the

corridor, that is defined by the rates at which it borrows from or lends to banks.

"The movement of market interest rates from the lower end of the corridor to the upper end... is itself a form of

tightening, and so the actual rate hike is not 140 bps but perhaps 205 bps," he said.

Mr. Varma also said there was no consensus on India's neutral real rate, which the RBI defines as the real (infla-

tion-adjusted) interest rate at which economic growth is close to potential and inflation is stable. But he pointed to estimates ranging between 0.5% and 1.5%.

## 'Neutral real rate'

"We are now in a situation of high inflation and weak economy. So the real rate might have to be only slightly above the neutral rate," he said, adding the real rate needs to be computed using projected inflation of 3-4 quarters ahead and not based on current inflation.

Based on that expectation, Mr. Varma said he sees further room for the Reserve Bank of India to increase interest rates. "But perhaps not too much," he said, adding, "this debate is really for the next meeting."

# June-quarter GDP data signals lower trend growth: Nomura

‘India’s growth may slow from 7% in FY23 to 5.2% in FY24’

**REUTERS**  
MUMBAI

India’s gross domestic product (GDP) data indicated that while domestic demand improved in the June quarter, growth was much slower in the sectors hardest hit by the pandemic, signaling deeper scarring and lower trend growth, Nomura said.

Based on the GDP and high-frequency data, domestic demand momentum did improve sequentially in the April-June period, but the slow recovery in the pandemic-hit sectors suggests lower post-pandemic trend growth, Sonal Varma, chief economist (India and Asia ex-Japan) at Nomura, wrote in a note.



“Despite reopening benefiting the contact-intensive services sectors, the underwhelming performance of the most vulnerable segments suggests potentially deeper scarring,” she said.

She pointed out that three sectors – manufacturing, construction and trade, and hotels, transport and communication - showed disap-

pointing GDP momentum in the June quarter. Outside of agriculture, these three sectors employ more unorganised sector workers.

“Their slower rebound, despite reopening, suggests firms have either shutdown or are no longer contributing to production, whereas larger firms have thrived and gained market shares.”

In light of the above and the incoming cyclical growth headwinds in the form of spillover effects from weakening global growth momentum, and fading pent-up demand, Nomura expects GDP growth to slow from 7% year-on-year in the current fiscal to 5.2% in the 2023-24 fiscal year.

# BSF's drone-based tear gas launcher is out

## Technology to be used in riot control

**SPECIAL CORRESPONDENT**

**NEW DELHI**

In a first, the Border Security Force (BSF) has developed a drone-based tear smoke launcher to control riots and other crowd control situations. The BSF said in a statement on Friday that its tear smoke unit (TSU) in Tekanpur, Gwalior has developed a 'Drone Tear Smoke Launcher' for dropping munitions from unmanned aerial vehicles/drones which will be a potential force multiplier to the security forces in law-and-order management.

An official said the technology will help in dropping multiple grenades at a time at accurate location.

"The chances of injuries from debris of the launched grenades will be minimal. The user can drop the grenades at a precise location, unlike the ones fired manually from a gun," said a BSF official.

The 42nd Annual Governing Body Meeting of the unit was held on Friday under the chairmanship of Pankaj Kumar Singh, Director General, BSF. He said that TSU is effectively producing and supplying anti-riot tear smoke munitions to all police forces for managing law and order situation. He said that indigenous production of non-lethal munitions by TSU has reduced dependence on foreign munition.

## Wind in the sail

INS *Vikrant* is a milestone; the focus now must be on a twin-engine deck-based fighter

India commissioned its first indigenously designed and built aircraft carrier, INS *Vikrant*, on Friday and joined a small group of countries which include the U.S., the U.K., Russia, France and China, that have the capability to design and build carriers with a displacement of over 40,000 tonnes. What India has demonstrated is the capacity to develop a carrier although it has been operating these ships for over 60 years. It took 17 years from the time the steel was cut and around ₹20,000 crore to make *Vikrant* a reality. Developing a viable domestic defence industry has been a priority for Prime Minister Narendra Modi, and the new aircraft carrier is a sign of India's expanding *atmanirbharta* or self-reliance in defence. The new vessel has 76% of indigenous content overall but its critical technology has been imported, pointing to the need for persistence. The carrier in itself is an engineering marvel with an endurance of 7,500 nautical miles. It has around 2,200 compartments for a crew of around 1,600 that include specialised cabins to accommodate women officers and sailors, and a full-fledged speciality medical facility. Several technological spin-offs from the ship's construction include the capacity to manufacture warship-grade steel, which India used to import. Its commissioning gives India and its emerging defence manufacturing sector the confidence to aim and sail farther.

The Indian Navy's ambition is to have three aircraft carriers – it already has INS *Vikramaditya* procured from Russia – and it has suggested that the expertise gained from building *Vikrant* could now be used to build a second, more capable, indigenous carrier. INS *Vikrant* will be the wind in the sail for India's proactive maritime strategy in the Indo-Pacific and the Indian Ocean Region. At the commissioning ceremony in Kochi, Defence Minister Rajnath Singh reiterated India's interest in “a free, open and inclusive Indo-Pacific” and Mr. Modi's idea of ‘SAGAR’ or Security and Growth for All in the Region. A strong Navy is also critical to India's ambition to grow its share in global trade, which is largely maritime – INS *Vikrant* significantly expands the Indian Navy's footprint in the backdrop of increasing Chinese activity in the region and New Delhi's closer cooperation with the U.S. While MiG-29K fighter jets will now be integrated into the fleet air arm of *Vikrant*, the Navy has taken an active interest in procuring either the French Rafale M or the American F/A-18 Super Hornet. This would need structural modifications in the ship which would allow operating these more capable aircraft from its deck. Meanwhile, the plans to develop India's own twin-engine deck-based fighter continue to remain a distant dream. The focus, and priority now, should be in resolving the fighter jet conundrum while also taking a call on the second indigenous aircraft carrier to ensure that the expertise gained is not jettisoned due to strategic myopia.

# Vikrant is a reflection of self-reliant India, says Modi

Country's first indigenous aircraft carrier commissioned into the Navy

DINAKAR PERI  
KOCHI

Security concerns in the Indo-Pacific region and the Indian Ocean had long been ignored, but today this area is a major defence priority of the country, said Prime Minister Narendra Modi on Friday as he commissioned *INS Vikrant*, the country's first indigenous aircraft carrier and the most complex warship ever built.

"*Vikrant* is a unique reflection of India becoming self-reliant," he said, adding that his government is working in every direction, from increasing the budget for the Indian Navy to increasing its capability.

The ship is christened after India's first aircraft carrier *Vikrant*, which played a vital role in the 1971 war. From 2013 to 2017, the Navy had fielded two aircraft car-

riers – the erstwhile *Viraat* acquired from the U.K. and the *INS Vikramaditya* from Russia which is currently in service.

Once *INS Vikrant* becomes fully operational, Indian Navy will once again be able to deploy two full-fledged carrier groups significantly expanding its footprint across the Indo-Pacific.

"So far, such aircraft carriers were only made by developed countries. India has taken a step towards being a developed country by being part of the league," said Mr. Modi speaking at the formal commissioning ceremony which saw the presence of several naval veterans who commanded and served on the erstwhile *Vikrant*.

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## Sentinel of the seas

A look at the 'floating airfield' *INS Vikrant*, India's first indigenous aircraft carrier

### TIME TRAVEL

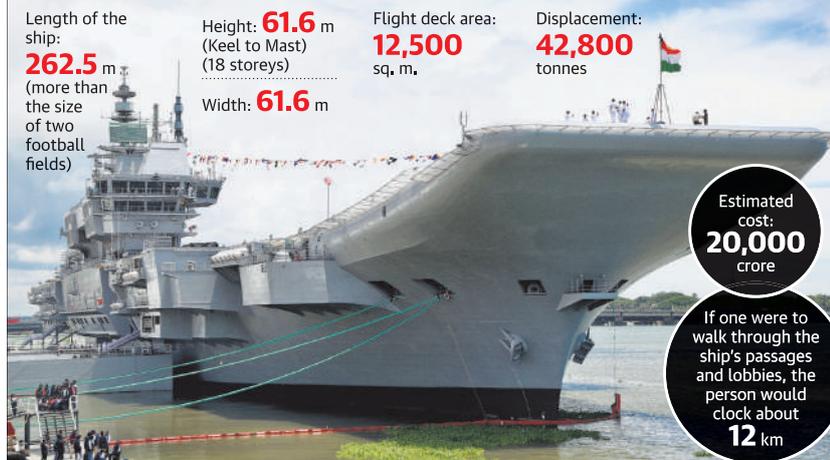
<b>February 2009:</b> Keel of the ship is laid	<b>August 2013:</b> The ship is launched (first time in water)	<b>November 2020:</b> Basin trials completed	<b>July 2022:</b> Sea trials completed (five phases)	<b>July 2022:</b> Delivery (acceptance by Navy)	<b>September 2022:</b> Commissioning as <i>INS Vikrant</i>
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Length of the ship:  
**262.5 m**  
(more than the size of two football fields)

Height: **61.6 m**  
(Keel to Mast) (18 storeys)  
Width: **61.6 m**

Flight deck area:  
**12,500**  
sq. m.

Displacement:  
**42,800**  
tonnes



Estimated cost:  
**20,000**  
crore

If one were to walk through the ship's passages and lobbies, the person would clock about  
**12 km**

### AHOY THERE! A LOOK AT SOME CARRIER STATS

Crew: **1,600**

Compartments:  
**2,300**

Max speed:  
**28** knots

Cruising speed:  
**18** knots

Endurance **7,500**  
nautical miles

■ Over **30** fighter aircraft and helicopters, including MiG 29Ks, Kamov and MH-60R choppers

■ Medium-range surface-to-air missiles

■ Close-in weapons systems

■ Fully functional hospital with a CT scan machine

■ Two operation theatres

# *Vikrant* a reflection of self-reliant India: PM

Terming *INS Vikrant* huge, the ceremony massive, distinguished and very special, Mr. Modi said it is not just a warship but a testament to the hard work, talent, influence and commitment of India in the 21st century.

The Commanding Officer, Capt. Vidhyadhar Harke, read the commissioning warrant and the *nishaan* (ensign) was hoisted.

The ship with a displacement of 42,800 tonnes was designed by the Navy's Warship Design Bureau (WDB) and built by Cochin Shipyard Limited (CSL), a public sector shipyard. Its aviation trials are expected to

commence by November and expected to continue till mid-2023. Officials had stated that the carrier is expected to be fully operational by the end of next year.

The ship is capable of operating an air wing of 30 aircraft, including MiG-29K fighter jets and Kamov-31 early warning helicopters.

The 262m long and 62m wide *Vikrant* is powered by four General Electric LM2500 engines which give it a maximum speed of 28 knots and endurance of 7500 NM, which means she can make a voyage from Kochi to Brazil without refuelling.

# India's cyber infrastructure needs more than patches

With cybercrime on the rise, the central and State governments need to work in tandem



R.K. VIJ

There has been a steady spike in cases of cybercrime in the last five years. According to the National Crime Records Bureau (NCRB), from 12,317 cases of cybercrime in 2016, there were 50,035 cases registered in 2020. In India, cybercrime is increasing with the increased use of information and communication technology (ICT). However, despite this alarming trend, the capacity of the enforcement agencies to investigate cybercrime remains limited.

As far as the admissibility of electronic evidence is concerned, though there were some conflicting judgments of the Supreme Court of India earlier, the law was finally settled in *Arjun Pandit Rao Khoikar vs Kailash Kushanrao Gorantyal & Ors*. The Court held that a certificate under Section 65B(4) of the Indian Evidence (IE) Act was a mandatory pre-requisite for the admissibility of (secondary) electronic record if the original record could not be produced.

With 'police' and 'public order' being in the State List, the primary obligation to check crime and create the necessary cyberinfrastructure lies with States. At the same time, with the IT Act and major laws being central legislations, the central government is no less responsible to evolve uniform statutory procedures for the enforcement agencies. Though the Government of India has taken steps that include the setting up of the Indian Cybercrime Coordination Centre (I4C) under the Ministry of Home Affairs to deal with all types

of cybercrime, much needs to be done to plug the infrastructural deficit.

## No procedural code

There is no separate procedural code for the investigation of cyber or computer-related offences. As electronic evidence is entirely different in nature when compared with evidence of traditional crime, laying down standard and uniform procedures to deal with electronic evidence is essential. The broad 'guidelines for the identification, collection, acquisition and preservation of digital evidence' are given in the Indian Standard IS/ISO/IEC 27037: 2012, issued by the Bureau of Indian Standards (BIS). This document is fairly comprehensive and easy to comprehend for both the first responder (who could be an authorised and trained police officer of a police station) as well as the specialist (who has specialised knowledge, skills and the abilities to handle a wide range of technical issues). The guidelines, if followed meticulously, may ensure that electronic evidence is neither tampered with nor subject to spoliation during investigation.

A significant attempt has been made by the higher judiciary in this field also. As resolved in the Conference of the Chief Justices of the High Court in April 2016, a five-judge committee was constituted in July 2018 to frame the draft rules which could serve as a model for the reception of digital evidence by courts.

The committee, after extensive deliberations with experts, the police and investigation agencies, finalised its report in November 2018, but the suggested Draft Rules for the Reception, Retrieval, Authentication and Preservation of Electronic Records are yet to be given a statutory force.



GETTY IMAGES/STOCKPHOTO

## Shortage of technical staff

Second, there have been half-hearted efforts by the States to recruit technical staff for the investigation of cybercrime. A regular police officer, with an academic background in the arts, commerce, literature, or management may be unable to understand the nuances of the working of a computer or the Internet. He can at best, after proper training, act as a first responder who could identify digital evidence and secure the scene of crime or preserve digital evidence till the arrival of an expert. It is only a technically qualified staff who could acquire and analyse digital evidence.

It is relevant here to mention that the Court, during the trial of the infamous *State of Goa, through C.I.D. C.B., North Goa, Goa. vs Tarunjit Tejpal* took objection to the fact that the investigating sub-inspector, who seized the relevant CDs, did not know the meaning of the term 'hash value'.

Similarly, in the Aarushi murder case of Noida, reported as *Dr. (Smt.) Nupur Talwar vs State of U.P. and Anr.*, the Allahabad High Court observed that the Indian Computer Emergency Response Team (CERT-IN) expert was not provided with the details of the Internet logs, router logs and laptop logs to prove whether the Internet was physically operated on the

fateful night. Even the certificate under Section 65B of the IE Act (which is statutorily required), was undated, and hence rejected by the trial court.

Therefore, it is essential that State governments build up sufficient capacity to deal with cybercrime. It could be done either by setting up a separate cyberpolice station in each district or range, or having technically qualified staff in every police station.

Further, the Information Technology (IT) Act, 2000 insists that offences registered under the Act should be investigated by a police officer not below the rank of an inspector. The fact is that police inspectors are limited in number in districts, and most of the field investigation is done by sub-inspectors. Therefore, it will be pragmatic to consider a suitable amendment in Section 80 of the Act and make sub-inspectors eligible to take up investigation of cybercrimes.

## Upgrade cyber labs

Third, the cyber forensic laboratories of States must be upgraded with the advent of new technologies. Offences related to cryptocurrency remain under-reported as the capacity to solve such crimes remains limited. The central government has proposed launching a digital rupee using blockchain technology soon. State enforcement agencies need to be ready for these technologies. The Centre helps in upgrading the State laboratories by providing modernisation funds, though the corpus has gradually shrunk over the years. While most State cyber labs are sufficiently equipped to analyse hard disks and mobile phones, many are yet to be notified as 'Examiner of Electronic Evidence' (by the central government) to enable them to provide

expert opinion on electronic records. Since there is now a state-of-art National Cyber Forensic Lab and the Cyber Prevention, Awareness and Detection Centre (Cy-PAD) of the Delhi Police, there may be an extension of professional help to States in getting their labs notified.

## Need for localisation

Most cybercrimes are trans-national in nature with extra-territorial jurisdiction. The collection of evidence from foreign territories is not only a difficult but also a tardy process. India has extradition treaties and extradition arrangements with 48 and 12 countries, respectively. In most social media crimes, except for the prompt blocking of an objectionable website or suspect's account, other details do not come forth quickly from large IT firms. Therefore, 'data localisation' must feature in the proposed Personal Data Protection law so that enforcement agencies are able to get timely access to the data of suspected Indian citizens. Also, the police still get CyberTipline reports on online Child Sexual Abuse Material (CSAM) from the U.S.'s non-profit agency, the National Center for Missing & Exploited Children (NCMEC). It would be a step forward if India develops its in-house capacity and/or makes intermediaries accountable to identify and remove online CSAM for immediate action by the police.

In fact, the Centre and States must not only work in tandem and frame statutory guidelines to facilitate investigation of cybercrime but also need to commit sufficient funds to develop much-awaited and required cyber infrastructure.

R.K. Vij is a former Special Director General of Police of Chhattisgarh. The views expressed are personal

# Navy's ensign pays tribute to Shivaji

Design sees fourth change since 1950; twin octagonal borders draw inspiration from royal seal

**SPECIAL CORRESPONDENT**  
KOCHI

Moving away from the colonial past, the Indian Navy on Friday adopted a new ensign inspired by the seal of *Maratha* king Chhatrapati Shivaji. It was unveiled by Prime Minister Narendra Modi at the commissioning of aircraft carrier *INS Vikrant* here.

“The President of India has approved the introduction of the new designs of the naval ensign, as also the distinguishing flags, masthead pennants and car flags for the Indian Navy,” the Navy said in a statement. “Formations, ships and establishments of the Indian Navy would be adopting the new naval ensign, as also the new



**Flying high:** The new naval ensign on *INS Vikrant* in Kochi on Friday. ■ THULASI KAKKAT

distinguishing flags, car flags and masthead pennants.”

## **Devanagari script**

This is the fourth time the naval ensign has been changed since 1950.

The earlier ensign had the

national flag in the upper left canton, red vertical and horizontal stripes and a golden-yellow National Emblem superimposed on the intersection of the red stripes. The national motto ‘*Satyamev Jayate*’ engraved in Devana-

gari script, was included underneath the emblem.

The statement said that resonant to the ongoing national endeavour to move away from the colonial past, the need was felt to transition to a new design that drew inspiration from the country’s history.

The white ensign identified nationwide with the Navy, now comprises two main constituents – the national flag in the upper left canton and a navy blue-gold octagon at the centre of the fly side (away from the staff), it stated.

The octagon is with twin golden octagonal borders encompassing the golden National Emblem (Lion Capital of Ashoka – under

scribed with ‘*Satyamev Jayate*’ in blue Devanagari script) resting atop an anchor; and superimposed on a shield. Below the shield, within the octagon, in a golden-bordered ribbon on a navy blue background, is inscribed the motto of the Indian Navy ‘*Sam No Varunah*’ in golden Devanagari script.

“The twin octagonal borders draw their inspiration from Shivaji Maharaj’s *rajmudra* or the seal of Chhatrapati Shivaji Maharaj, one of the prominent Indian kings with a visionary maritime outlook, who built a credible naval fleet that earned grudging admiration from European navies operating in the region at the time,” the Navy said.

General Studies Paper I	
A	History of Indian culture will cover the salient aspects of art forms, literature and architecture from ancient to modern times;
B	Modern Indian history from about the middle of the eighteenth century until the present-significant events, personalities, issues;
C	Freedom struggle-its various stages and important contributors / contributions from different parts of the country;
D	Post-independence consolidation and reorganization within the country;
E	History of the world will include events from 18 <sup>th</sup> century such as industrial revolution, world wars, re-drawing of national boundaries, colonization, decolonization,
F	Political philosophies like communism, capitalism, socialism etc.-their forms and effect on the society
G	Salient features of Indian Society, Diversity of India;
H	Effects of globalization on Indian society;
I	Role of women and women's organization;
J	Social empowerment, communalism, regionalism & secularism
K	Salient features of world's physical geography;
L	Geographical features and their location- changes in critical geographical features (including water bodies and ice-caps) and in flora and fauna and the effects of such changes;
M	Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc.
N	Distribution of key natural resources across the world (including South Asia and the Indian subcontinent);
O	Factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India);
P	Population and associated issues;
Q	Urbanization, their problems and their remedies
General Studies Paper II	
A	India and its neighbourhood- relations;
B	Important International institutions, agencies and fora- their structure, mandate;
C	Effect of policies and politics of developed and developing countries on India's interests;
D	Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.
E	Indian Constitution, historical underpinnings, evolution, features, amendments, significant provisions and basic structure;
F	Comparison of the Indian Constitutional scheme with other countries;
G	Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein; Inclusive growth and issues arising from it;
H	Parliament and State Legislatures - structure, functioning, conduct of business, powers & privileges and issues arising out of these;
I	Structure, organization and functioning of the executive and the judiciary, Ministries and Departments;

J	Separation of powers between various organs dispute redressal mechanisms and institutions;
K	Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional bodies;
L	Statutory, regulatory and various quasi-judicial bodies;
M	Mechanisms, laws, institutions and bodies constituted for the protection and betterment of these vulnerable sections;
N	Salient features of the Representation of People's Act;
O	Important aspects of governance, transparency and accountability, e-governance- applications, models, successes, limitations, and potential;
P	Citizens charters, transparency & accountability and institutional and other measures;
Q	Issues relating to poverty and hunger,
R	Welfare schemes for vulnerable sections of the population by the Centre and States, Performance of these schemes;
S	Issues relating to development and management of social sector / services relating to education and human resources;
T	Issues relating to development and management of social sector / services relating to health
General Studies Paper III	
A	Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment;
B	Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth;
C	Inclusive growth and issues arising from it;
D	Infrastructure Energy, Ports, Roads, Airports, Railways etc. Government budgeting;
E	Land reforms in India
F	Major crops, cropping patterns in various parts of the country, different types of irrigation and irrigation systems;
G	Storage, transport and marketing of agricultural produce and issues and related constraints;
H	e-technology in the aid of farmers; Technology Missions; Economics of Animal-Rearing.
I	Issues of buffer stocks and food security, Public Distribution System- objectives, functioning, limitations, revamping;
J	Food processing and related industries in India – scope and significance, location, upstream and downstream requirements, supply chain management;
K	Issues related to direct and indirect farm subsidies and minimum support prices
L	Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology;
M	Indigenization of technology and developing new technology;
N	Developments and their applications and effects in everyday life;
O	Issues relating to intellectual property rights
P	Conservation, environmental pollution and degradation, environmental impact assessment
Q	Disaster and disaster management
R	Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security;
S	Money-laundering and its prevention;

T	Various forces and their mandate;
U	Security challenges and their management in border areas;
V	Linkages of organized crime with terrorism;
W	Role of external state and non-state actors in creating challenges to internal security;
X	Linkages between development and spread of extremism.
<b>General Studies Paper IV</b>	
A	Ethics and Human Interface: Essence, determinants and consequences of Ethics in human actions;
B	Dimensions of ethics;
C	Ethics in private and public relationships. Human Values - lessons from the lives and teachings of great leaders, reformers and administrators;
D	Role of family, society and educational institutions in inculcating values.
E	Attitude: Content, structure, function; its influence and relation with thought and behaviour;
F	Moral and political attitudes;
G	Social influence and persuasion.
H	Aptitude and foundational values for Civil Service , integrity, impartiality and non-partisanship, objectivity, dedication to public service, empathy, tolerance and compassion towards the weaker sections.
I	Emotional intelligence-concepts, and their utilities and application in administration and governance.
J	Contributions of moral thinkers and philosophers from India and world.
K	Public/Civil service values and Ethics in Public administration: Status and problems;
L	Ethical concerns and dilemmas in government and private institutions;
M	Laws, rules, regulations and conscience as
N	sources of ethical guidance;
O	Accountability and ethical governance; strengthening of ethical and moral values in governance; ethical issues in international relations and funding;
P	Corporate governance.
Q	Probity in Governance: Concept of public service;
R	Philosophical basis of governance and probity;
S	Information sharing and transparency in government, Right to Information, Codes of Ethics, Codes of Conduct, Citizen's Charters, Work culture, Quality of service delivery, Utilization of public funds, challenges of corruption.
T	Case Studies on above issues.