

# PRAJYA

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## MISSION SAGAR INS KESARI

# NATIONAL

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In Bhagavat Gita, when Lord Sri Krishna says:

**अवश्यकरणीयचमात्वांकालोऽत्यागदयम।**

**(Transliteration: avashyakaraṇīya ca mātvāṅkālo'tyāgadayama)**

**(Rough Translation : Do whatever you have to do, don't waste time)**

He emphasises the importance of timely and swift action. Great leaders like Lal Bahadur Shastri demonstrated this quality when independent India was struggling with the challenges of poverty, malnourishment and military aggression from hostile neighbours.

Whether it is the case of helping distressed countries like Mozambique or Sri Lanka or averting an attempted bank fraud by a conman, quick action makes all the difference. India's unhesitating and unconditional gesture of assistance is laudable. Uttar Pradesh as a state acted speedily and sensibly in its water conservation efforts.

Inventing and using new technologies to enhance safety and security are indispensable. Be it in the field of defence - building new missiles or a quantum computing lab; or disinfecting the bus and train coaches using UV technology, time-bound execution is of the essence.

We global citizens must act expeditiously to arrest the damages caused to our environment through our own actions. As young student Vinisha Umashankar rightly proclaims, we need alacritous actions rather than promises to save the Earth.

Read, reflect and revert with your thoughts and feelings.

We look forward to your support and suggestions.



**- Editorial Team**

*Dear Readers,*

There have been requests from quite a few readers for hard copies of Prajya. We understand that quite a high percentage of our young readers keep revisiting some articles, and a handy print version within reach induces one to read more often, highlight things and make notes. This also partly contributes to students spending less screen time. The Prajya team is happy to bring to you the issue in print.

However, there are few things that we want to be careful about:

- A. We don't want to print more than what is required and
- B. Keep the cost of the print version (plus postage) within reasonable limits.

**Please note that the access to free online e-version will continue.**

So, it will greatly help us if you could fill in the details in the link provided.

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**Happy Reading !**

**Watch out for the Monthly Prajya Quiz online**

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# INS KESARI Delivers Food Aid and Defence Equipment TO MOZAMBIQUE

**The ship is also carrying a couple of Fast Interceptor Craft along with certain self-defence equipment.**

The Indian Navy has proactively been engaged under 'Mission SAGAR' in carrying out numerous humanitarian missions and providing medical aid to help nations in their fight against the pandemic. SAGAR stands for "Security and Growth for All in the Region". Launched in May 2020, 'Mission Sagar' was India's initiative to deliver Covid-19 related assistance to friendly countries in the Indian Ocean Littoral states.

INS Kesari has delivered over 500 tonnes of food to Mozambique to help the country deal with the drought conditions and the Covid-19 pandemic situation. The

ship is also carrying a couple of Fast Interceptor Craft along with certain self-defence equipment for the armed forces of the east African nation. This is the eighth such deployment being conducted in order to further PM's vision.

Medical and humanitarian assistance has already been delivered to countries like Madagascar, Seychelles, Comoros, Mauritius and Maldives during May-June 2020. More than 3,000 metric tonnes of food aid, 900 oxygen concentrators along with over 300 MT of liquid medical oxygen have been supplied by the Indian Navy as a part of these missions.





# TS TIRUMURTI

## HEADS UN's

### COUNTER-TERRORISM COMMITTEE

India's permanent representative to the United Nations, TS Tirumurti, was named the new Chair of the UN Counter-Terrorism Committee (CTC), a subsidiary body of the Security Council. He holds Bachelor's Degrees in Commerce and Law. He joined Indian Foreign Service (IFS) in 1985 and has served the nation in numerous capacities listed below.

- Secretary in the Ministry of External Affairs.
- Served at the Embassy of India in Egypt.
- Served at the Permanent Mission of India to the UN in Geneva.

- First Representative of India to the Palestinian Authority.
- Counsellor in the Embassy of India in the US.
- Deputy Chief of Mission in the Embassy of India in Indonesia.
- High Commissioner of India in Malaysia.
- Under Secretary (Bhutan).
- Director (Office of the Foreign Secretary).
- Joint Secretary (Bangladesh, Maldives, Myanmar and Sri Lanka).
- Joint Secretary (United Nations Economic and Social Council) during his service in the Ministry of External

Affairs of India, in New Delhi.

He is also the author of three books: *Kissing the Heavens - The Kailash Mansarovar Yatra* (1999), *Clive Avenue* (2002), and *Chennaivasi* (2012).

India is currently a non-permanent member of the 15-nation Security Council.

The CTC was established in 2001 as a consequence of the 9/11 terrorist attacks.

As a chair of the CTC, India looks forward to making determined efforts to further strengthen the multilateral response to counter terrorism and ensure that global response to the threat of terrorism remains undivided and effective.





# KAZAKHSTAN

## Fuel Riots and Beyond

Riots over religion and food are too well known and we have witnessed quite a few of them. However, we have not heard much about fuel riots. A United Nations University UNU-WIDER working paper says that between 2005 and 2018, 41 countries have had at least one riot directly attributable to popular demand for fuel. What happened in

early January 2022 in Kazakhstan is one such and a deadly one at that.

### The Country

Kazakhstan is a country located mainly in Central Asia, bordering Russia, China, Kyrgyzstan, Uzbekistan and Turkmenistan. This is the **world's largest land locked country** with a population of about 19 million. With some of the largest

oil reserves, it also has 40% of the world's Uranium reserves. 60% of the region's GDP is earned by Kazakhstan.

It became independent in 1991 following the collapse of the Soviet Union - the last to declare independence.

Nursultan Nazarbayev, a former communist party politburo member became the first President







and ruled the country with an iron fist for nearly three decades. He focused on economic growth and the country has billions of dollars of foreign investment. The average per capita GDP of Kazakhstan is about USD 9K which is not bad. But the problem is the inequality as the wealth is concentrated with the ruling elite, foreign investors and multinational corporations. 55% of the nation's wealth is concentrated in the hands of 162 people. Nursultan built statues of himself everywhere and also got the capital city Astana (now Nursultan) renamed after him. He and his three daughters have amassed huge wealth. He stepped down in 2019 and made way for **Kassym Jomart Tokayev** to become the President. However, he was the chairman of the security council and continued to wield enormous power as the 'Leader of the Nation'.

### The Riots and the Response

After the government lifted the cap on the price of Liquefied Petroleum Gas (LPG), demonstrations started on 2 January 2022 in the town of Zhanaozen, an oil hub, and spread to other cities as well. Due to the government's subsidy, LPG was less expensive than other fuels and majority of the population had switched over to LPG as the motor fuel. Government's action resulted in nearly doubling LPG prices. This was clearly unaffordable and hence the unrest. Five days into the protest, the government held back the increase and put it on hold for 6 months. But the protests continued.

Given the inequality in the country and a dictatorial and corrupt leadership, Kazakhstan was a tinder box waiting to be ignited. The slogan of "shal, ket" (Old man – Go away) was raised by the protestors against Nazarbayev. Reportedly 225 people have been killed including 19 law enforcement officers and military personnel. The protestors torched cars, government buildings, banks and shops. About 400 vehicles have been burnt and 10,000 people have been arrested.

The government's response was tyrannical. The protestors were labeled as armed bandits, provocateurs, terrorists etc. President Tokayev who hitherto appeared more liberal than his predecessor, has now come out as equally authoritarian, if not more.





**About 700 US companies including Chevron, Exxon, Mobil, GE and Halliburton have massive operations in Kazakhstan.**

He had given “shoot to kill” orders. For the first time since the formation of the Collective Security Treaty Organisation (CSTO)—an organization of Russia, Kazakhstan, Belarus, Tajikistan, Kyrgyzstan and Armenia, set up after the collapse of the Soviet Union, its authority has been invoked and Russian paratroopers have been deployed to restore peace and order, on the request of President Tokayev.

At the political level too, there was a blood bath of sorts. The PM and the entire cabinet resigned on the 5th and the President accepted their resignations.

He also stripped Nazarbayev of his chairmanship of the security council. Many of his associates were sacked. On 11th January Tokayev declared that the protests are over. In his speech he had also criticized Nazarbayev and his associates for having accumulated the wealth at the cost of the ordinary Kazakhs.

## **Beyond the Riots**

While the fuel price hike was the trigger for the unprecedented unrest, this has wider ramifications for Kazakhstan and the world. The people are protesting for more democratic rights, direct elections to the regions and an equitable order in Kazakhstan. People are waiting to see if things would change for the better. The country has to certainly move towards a more democratic and egalitarian model which is sustainable.

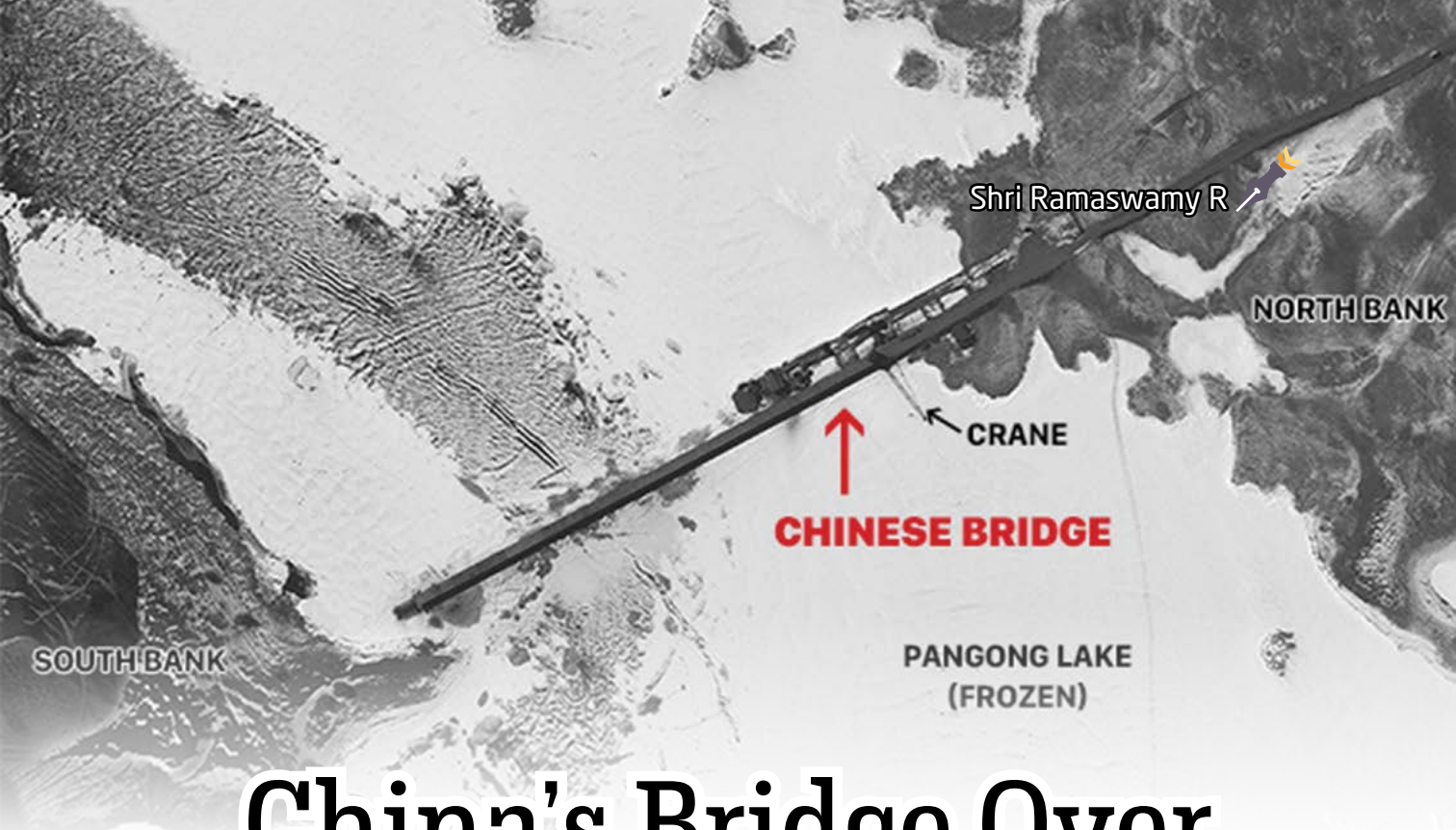
While Nazarbayev was autocratic and corrupt, he maintained a delicate balance between Russia, China and the US. It remains to be seen whether Tokayev can maintain the same. Russia would be concerned as this is the third major unrest after the pro-democracy uprisings in Ukraine in 2014 and Belarus in 2020. This also adds uncertainty to the Russia – US engagement over Ukraine. Russia would like to gain a foothold in Ukraine and Kazakhstan and seize this opportunity. US also has business interest in Kazakhstan.

US companies have invested nearly USD 54 bn in the last 30 years. In all about 700 US companies including Chevron, Exxon, Mobil, GE and Halliburton have massive operations in Kazakhstan. Hence US would not like Russia to enter the scene. China on its part will also be keenly watching the situation as it shares a 1700 km border with Kazakhstan. Kazakhstan is a strategic partner to the European world too. As of now the situation is volatile and we need to wait for things to crystallize.

This apart, such unrest may occur in the future in many countries with subsidy regimes. That is perhaps why some researchers opine that fuel riots are the food riots of the 21<sup>st</sup> century.







# China's Bridge Over Pangong Lake - Facts

**The bridge is constructed in areas that have been under illegal Chinese occupation for about 60 years now.**

Pangong Tso is an **endorheic (non-draining and saline)** lake spanning eastern Ladakh and western Tibet situated at 4225 m. It is 134 km long, divided into 5 sub-lakes and covers 604 sq kms. The lake is 5km wide at its broadest point. Approximately 50% of the length of the overall lake lies within Tibet, 40% in Ladakh India and the rest is a disputed buffer zone between the two countries.

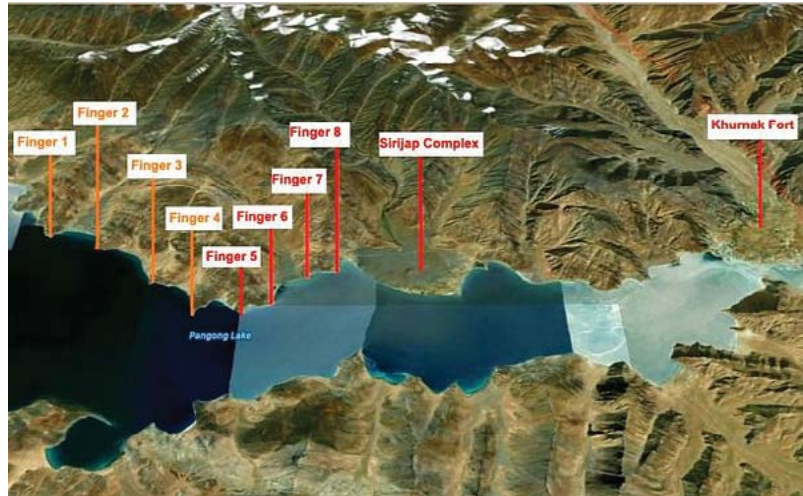
The purported China's bridge over the Pangong lake is coming up only in an area called Khurnak under Chinese occupation since 1958 and 25 km away from the Indian side of Line of Actual Control.

The news of construction made national headlines on Jan 3, 2022. Ministry of External Affairs (MEA) addressed the issue at its weekly presser on Jan 6. According to MEA, the bridge is constructed in areas that have been under illegal Chinese occupation for about 60 years now, though India had vehemently protested such occupation.

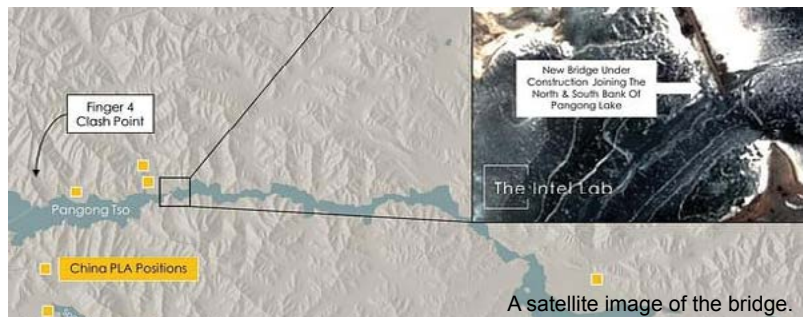




India has developed a network of tunnels, bridges and roads in Ladakh to allow for a rapid mobilization of our troops.



While India holds area up to the western side of Finger 4, also called Foxhole Point or Foxhole Ridge, and claims that the LAC runs through Finger 8, China claims that the LAC is close to Finger 2. India has been sending patrols up to Finger 8 for years while the Chinese patrol up to the eastern side Finger 4.



After encroachment done in 1958, China during 1962 war, expanded its control to Sirijap Complex which are alluvial plains further west of Khurnak Fort.

Chang Chenmo ranges make the northern banks of Pangong lake. **Spurs that jut out from the range, running mostly perpendicular towards the northern bank of the lake, are called "Fingers" by the Indian Army.**

India controls the area up to Finger 4, also called Foxhole Point. China claims that the LAC is close to Finger 2.

Before the stand-off, Indian patrols went up to Finger 8, and the Chinese patrolled the area east of Finger 4. During the stand-off, Chinese who had a base just at Finger 8, occupied the area between

Finger 8 and the eastern side of Finger 4, blocking India from accessing the area.

The blocking of Indian patrol triggered a violent clash between the two armies in the night of June 15-16. This led to deaths of 20 Indian soldiers and an unspecified number, but as high as 40 Chinese, according to Intelligence sources.

Though both countries have had several rounds of talks towards resolution of the dispute, both have not shied away from beefing up their defences and building their infrastructure along the border.

India has developed a network of tunnels, bridges and roads in Ladakh to allow for a rapid mobilization of our troops in the hostile high-altitude region, where temperatures dip as low as -45 deg C.





# INDIA EXTENDS FINANCIAL ASSISTANCE TO SRI LANKA

**Government of India has announced a financial assistance of \$900 million.**

**W**ith Sri Lanka facing its worst ever financial crisis in recent history, the Government of India has announced a financial assistance of \$900 million. This will help build up Sri Lanka's foreign exchange reserves and also in procuring food and other essentials.

Sri Lanka declared financial emergency in September 2021 in the wake of an unprecedented inflation and decrease in its currency value. The pandemic took a toll on

its tourism sector; the unprepared switch to organic agriculture had a drastic effect on tea production, the major export commodity of Sri Lanka. Food and other essential items are running dry due to a shortage of dollars to pay for the imports. Power cuts are being imposed at peak hours as the state power producing companies are unable to obtain fuel to run turbines.

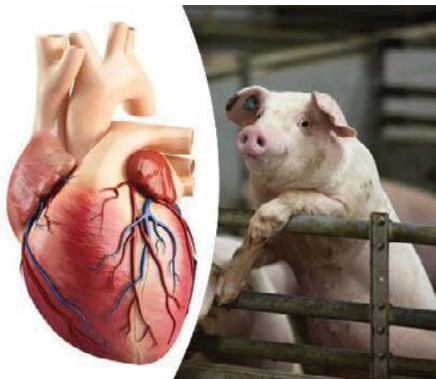
The aid comprises deferment of Asian Clearing Union settlement of over \$509 million and currency swap of \$400 million. Sri Lanka is also negotiating a \$1 billion loan deal with India to import goods from the latter. It is also set to buy fuel from Indian Oil Corporation to tide over its burgeoning energy crisis with a \$500 million Line of Credit (LOC). The Export Import Bank (EXIM) of India and the Sri Lanka government signed a LOC Agreement for purchase of petroleum products.

India which shares a natural relationship with Sri Lanka has come to its rescue. It is also necessary for India to extend help as Sri Lanka would otherwise fall into the predatory hands of China which might become a threat for both Sri Lanka and India.



Indian High Commissioner to Sri Lanka Gopal Baglay (left) and Central Bank Of Sri Lanka Governor Ajith Nivard Cabraal met in Colombo.





# PIG HEART transplanted into a HUMAN



**Dr. Bradley Griffith**

**O**n 4th January 2022, in a ground-breaking procedure, David Bennet Sr. of Maryland, USA was transplanted with a genetically modified pig heart.

A team of surgeons headed by Dr. Bartley Griffith at the University of Maryland Medical Centre performed this experimental operation to treat Mr. Bennet's life-threatening heart disease.

Throughout the world, there is an acute shortage of organs for transplant surgeries. This is further complicated by donor organs that might be rejected by patients who undergo the transplant.

Scientists have been working towards developing pigs whose organs will not be rejected by human bodies after a transplant. This has been possible only in the last decade due to leaps in our understanding

of gene editing and cloning technologies.

There was a successful transplant of a pig kidney done to a brain-dead patient without any harmful side effects just a few months ago.

Dr. Griffith opined that while this transplant was a success, this is just the first step towards a future where there will be no shortage of organs for transplant. He also cautioned that it will be a long time before such procedures and the science behind them are perfected.

Doctors and researchers are monitoring David Bennet. The success of this transplant and the patient's prognosis post recovery will be an important step in developing gene editing technologies that can be used to make this procedure much more consistent and hopefully, viable outside experimental settings.





# "The Best Time to Invest in India"

## PM at WEF

### DO YOU KNOW

- India jumped from 142nd (2014) to 63rd position(2019) in 'World Bank's Ease of Doing Business Ranking 2020'.
- India ranks 68th on the Global Competitiveness Index 2018-19.

World Economic Forum (WEF) head quartered in Switzerland brings political and business leaders from various countries together to discuss global issues every year. On 17th Jan 2022 while addressing the WEF Online Davos Agenda, PM Narendra Modi said that India's growth in the **next 25 years will be clean, green, sustainable and reliable.**

He highlighted the various measures taken by the government to enable "the ease of doing business", and said that it is the **best time to invest in India.** India's reforms are focused in the right direction and global economic experts have appreciated India's decisions.

In his speech, the PM highlighted the following points:

**Innovations in technology and digital infrastructure** He quoted technological adaptation like Unified Payment Interface(UPI), Arogya Setu and Cowin as examples of

India's rapid growth in technology and digital Infrastructure.

**Increase in the registered start-ups in India** The number has crossed 60,000 with more than 10,000 registered in the last six months, though we had only a few hundred registered start-ups in 2014.

India sends the highest number of software engineers across the world and over 50 lakh software developers are working in the country.

PM also mentioned that the IT sector worked round the clock during the pandemic to help the world. India has become a reliable partner in the global supply chain and has made commendable **export of medicines and COVID vaccines** to many countries as a part of '**One Earth, One Health**' vision. India is the third-largest pharma producer in the world today.

India has strengthened its reforms while other countries are struggling to handle the pandemic.





# **RUSSIA - UKRAINE** **Conflict**

Ukraine aspired to become a free market economy and sought an association agreement with EU instead of Russia.

Ukraine and Russia are countries that surround the Black Sea which is landlocked between Eastern Europe and West Asia. Ukraine region is an important transit corridor for goods and energy.

### **Brief history**

After WWII, in the 1950s, Russia annexed Ukraine and Crimea to be part of USSR.

In 1991, after break up of USSR, Ukraine together with Crimea became a separate Republic. The country was also recognised as Member of UN.

### **Economic Development**

From 2000 onwards Ukraine economy steadily grew for the next 12 years. The nation aspired to become a free market economy and sought an association agreement with European Union instead of choosing closer ties with Russia.

### **Political Development**

In 2013, Ukraine not getting closer to West, sparked civil unrest and protests. In March 2014, President Viktor Yanukovich was demoted from office after street protests ended in violence and deaths. Simultaneously, Ukraine was invaded by Russian forces and





## DO YOU KNOW ?

**NATO (North Atlantic Treaty Organization) is an organization of the USA, Canada, Britain and other European countries, all of whom have agreed to support one another if they are attacked.**

Crimea was annexed into Russian Federation.

The invasion was condemned by USA, EU and UN. Russia was suspended from membership of G8 and USA imposed economic sanctions.

### Minsk Agreements Minsk I

In Sept 2014, talks were held at the Belarus capital of Minsk between Ukraine and pro-Russian separatists. The participants agreed to a 12-point ceasefire deal including prisoner exchange, deliveries of humanitarian aid and withdrawal of heavy weapons. But the agreement quickly broke down with violations from both sides.

### Minsk II

Open conflict was averted after talks in 2015 under mediation from France and Germany. The agreement sought to end fighting in rebel regions and handing over the border to Ukraine national troops.

In 2016, UN again reaffirmed non recognition of the annexation as violation of international law. On their part, Ukraine has blocked the North Crimean Canal which caters to 85% drinking water needs of the region.

### Current Situation

Ukraine wants to become a NATO member. Russia abhors US led military alliance coming right up to their doorstep. In response, Russia has amassed more than 1,00,000 troops around Ukraine.

### India on Ukraine Russia Crisis

India is worried that if left unchecked, the crisis may spiral into a conflict between NATO-supporting Ukraine and Russia, both having nuclear arms. Hence India has called for peaceful resolution of the crisis through sustained diplomatic efforts for long term peace and stability in the region and beyond.







# 15-year-old Student Innovator India's Baton Bearer

In three years, her desire to make the couple's lives better and world cleaner, transformed into a solar powered cart.

A young Indian has caught the attention of the world with her innovation of **Solar Ironing Cart**, which won her the prestigious **Children's Climate Prize in November 2021**, which is one of the most significant climate-related awards for young innovators, given by a Sweden based Children's Climate Foundation. Vinisha Umashankar identifies herself as an artist, innovator and environmentalist.

The tenth-grade student was asked by Prince William, Duke of Cambridge at a meeting in the 26th United Nations Climate Change Conference of Parties (COP26) in Glasgow, UK for her views on clean energy. In the presence of world leaders including British PM Boris Johnson, US President Joe Biden and PM Modi, Vinisha spoke about how young people had every reason

to be angry and frustrated at leaders who had made empty promises and failed to deliver. She added that the world today needs actions rather than promises. Her speech was received with a standing ovation.

At twelve, Vinisha had observed her clothes being ironed with charcoal by a couple who ran a mobile ironing cart in her street in Thiruvannamalai town in Tamil Nadu. In three years, her desire to make their lives better and the world cleaner, transformed into a solar powered cart. It has solar panels with a roof connected to a 100 Ah battery. A 12 volt 100 Ah battery needs around 1,200 watts of power to be fully charged. It takes five hours of bright sunshine to fully charge the battery and it powers the ironing box for six hours.

Vinisha is India's promise to the world for a better tomorrow.



# POLITICS OVER SECURITY

SPG is an elite commando unit responsible to protect the PM, former PMs and their immediate families at official residences at all times, everywhere.

**PM** Modi visited Punjab on 5th January 2022 to lay foundation for development projects worth INR 42,750/-crores. The Delhi-Amritsar-Katra Expressway, four laning of Amritsar - Una section and Mukerian-Talwara new broad gauge railway line were the three projects. He was also slated to lay the foundation stone for new medical infrastructure in 3 towns. There was a serious breach of security during his visit, causing concern.

### The Incident

PM landed at Bathinda's Bhisiana airport in the morning. He was to go to the National Martyr's Memorial at Hussainiwala by a chopper. Weather conditions compelled an alternate plan and so he undertook a two-hour- long road journey.

About 30 kms ahead of Hussainiwala, PM's convoy was stranded on a fly over near the Ferozepur-Moga road due to a blockade by farmers. Announcements made from a local Gurudwara brought in more farmers to the site. After about 20 minutes the PM cancelled his programmes and returned to Delhi. The Ministry of Home Affairs (MHA) has sought an immediate report on the incident. PM's safety and security are the responsibility of the Special Protection Group (SPG).

### Special Protection Group

SPG, an agency formed by an act of the Parliament in 1988 (amended 2019) is an elite commando unit responsible to protect the PM, former PMs and their immediate families at official residences at all times, everywhere.

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**There have been many violations of protocol in this case. No senior official from the State was available to receive the PM at the airport and no senior official accompanied the cavalcade.**

SPG is also responsible for the Advanced Security Liaison (ASL). This means during the PM's visit to a state, the personnel from the central agencies monitor and record every minute of the schedule. This is maintained by the state police and overseen by SPG officials. Sanitising the venue and the PM's route are also part of ASL. SPG is mandated to carry out anti-sabotage checks and frisking of anyone who may approach the PM.

### **Protocol-Blue Book**

Blue Book issued by MHA, is the book of guidelines / procedures to be followed. According to the Blue Book, the SPG must convene an ASL three days before each visit by the PM, with everyone engaged in protecting the event, including Intelligence Bureau authorities in the concerned state, state police officers, and the pertinent district magistrate. Even the tiniest of details are laid out. A thorough review of the travel plan is made and contingency plans are also developed at all levels. Inputs from the central and the local intelligence agencies is factored in these plans.

### **The Breach and the Unknowns**

There have been many violations of protocol in this case. No senior official from the State was available to receive the PM at the airport and no senior official accompanied the cavalcade.

Despite Intelligence inputs about the protests by farmers, no contingency plan had been prepared by the State Police. Sanitizing the route was not carried out. It is not known whether any rehearsal on the route had been done. It is not clear as to which agency took the decision to travel by road for two hours in a vulnerable route.

The PM was within Pakistan's firing range when he was stranded.

Only an impartial inquiry can bring out all the facts and fix the responsibility.

### **Has anybody handled such a situation better?**

In 2018 a chopper carrying the then home minister Rajnath Singh broke down at a rally in Raigarh district deep inside the Maoist infested Chhattisgarh. He had led the charge against the Maoists and the threat was high. CM of Chhattisgarh Raman Singh acted swiftly.

Learning about the chopper failure, within about half an hour, he arranged for secure vehicles for an-hour-long trip and arranged another chopper at that venue. This is in sharp contrast to the manner in which the situation was handled in Punjab.

### **Need of the Hour**

The political slugfest post this incident is despicable. Neither the BJP at the Centre nor the Congress in Punjab did justice to the seriousness of the issue with their politically motivated attacks at each other.

Fortunately, there were sane voices too that had called out the lapse and sought a probe. That there were two inquiry panels set up –one by the State and the other by the Centre has only trivialised this serious issue.

The Supreme court has ordered a stay on both the panels and has set up a separate panel. It is really sad that a country which had lost two prime ministers to terror has responded in this manner to this episode and it is shocking that the Government of a State that had paid a heavy price on account of terror has approached the security of a PM in an indifferent manner. We need to wait for the Supreme Court Panel's finding to get at the full facts. There is a compelling need to start behaving like a mature democracy, while working on an improved protocol and effective adherence of the Blue Book.







# NEW HYDROPOWER PROJECTS in MANDI

India has committed to ensuring that at least 40% of our electricity will be generated from non-fossil sources by 2030.

PM Modi laid the foundation stone for the Renukaji Dam project and three other hydropower projects worth ₹11,000 crores in Mandi, Himachal Pradesh on 27th December 2021. He also attended the ground breaking ceremony of the Himachal Pradesh Global Investors' meet. 287 investment projects worth over ₹28,197 crores were launched in this meet to mark the fourth anniversary of the BJP government in the state.

40 megawatt Renukaji Dam project's budget is estimated to be around ₹7,000 crores. Aside from generating electricity, it will also ensure 500 million cubic metre water supply per year to Delhi. The Luhri stage 1 Hydro Power Project is a 210 megawatt project being built at a cost of ₹1,800 crores. This will generate 750 million units of electricity per year.

The first hydropower project in the Hamirpur district, **the Dhaulasidh hydro power project** is a 66 megawatt project to be built at a cost of ₹680 crores.

This will generate 300 million units of electricity per year. The final inauguration was for the Sawra-Kuddu hydro power project that will be built at a cost of ₹ 2,080 crore. This 111 megawatt project can generate over 380 million units of electricity per year.

Under the Paris climate agreement, India has committed to ensuring that at least 40% of our electricity will be generated from non-fossil sources by 2030. These new hydropower projects will optimise the usage of resources in the Himalayan region while increasing our renewable energy sources.



# Adani Transmission Bags two Green Energy Projects

## DO YOU KNOW ?

ATL headquartered in Ahmedabad is one of the largest private sector power transmission companies in India.

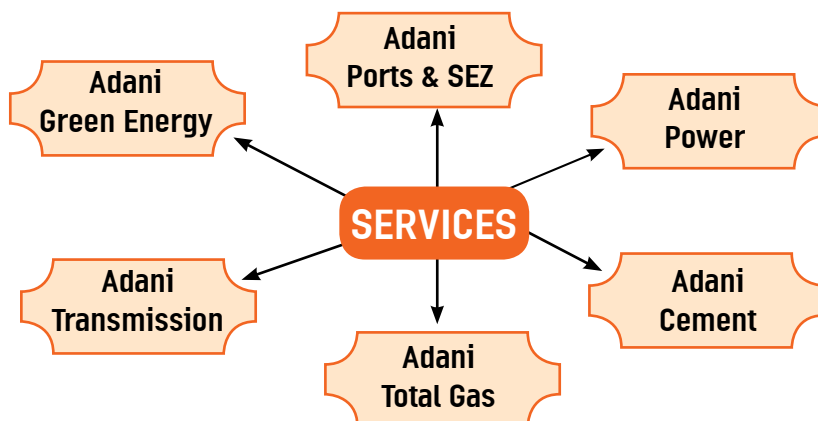
Adani Transmission Ltd (ATL), a subsidiary of the Adani Group, has been granted two transmission projects in Gujarat and Tamil Nadu for the power evacuation from renewable energy (RE) plants.

ATL has received the Letters of Intent (LoI) under Khavda-Bhuj Transmission Ltd (1200 crores) and Karur Transmission project (200 crores). ATL won these projects through the Tariff-

Based Competitive Bidding (TBCB) process. It will construct, own, operate and maintain the transmission projects in Tamil Nadu and Gujarat for a period of 35 years.

The two projects will enable Gautam Adani to achieve his goal of constructing 20,000 circuit kilometres (ckt km) of transmission lines by 2022. ATL now has a total transmission network of roughly 18,500 ckt km, out of which 13,400 ckt km is operating and the rest is under construction.

"ATL is already a market leader in the private sector for electricity transmission infrastructure, and this project will further expand our footprint in Gujarat," said Anil Sardana, managing director and chief executive officer. Sardana said the project at Karur Transmission will be ATL's first-ever ISTS project in TN.





# VEER BAL DIWAS

The four sons of Guru Gobind Singh envisioned a world that is inclusive and harmonious.

The joy of celebrating any special day doubles when we have an insight into the history of that particular day. PM Modi announced on the occasion of ‘Guru Parv’, the birth anniversary of Guru Gobind Singh that ‘Veer Bal Diwas’ would henceforth be celebrated every year on 26th December. It will be a fitting tribute to the courage and pursuit of justice of the Sahibzadas, the four sons of Guru Gobind Singh – **Ajit Singh, Jujhar Singh, Zorawar Singh and Fateh Singh**. All four initiated into the Khalsa before the age of 19 were executed by Mughal forces.

On this day Zorawar and Fateh Singh were captured with their paternal

grandmother Mata Gujari. They were imprisoned with their grandmother and put to death on the orders of Aurangzeb for standing up for their faith. They were suffocated inside a brick enclosure and beheaded later. At the time of martyrdom, the ages of Zorawar Singh and Fateh Singh were 9 years and 6 years respectively. These two greats preferred death instead of deviating from the noble principles of Dharma.

The story of their bravery and ideals give strength to millions of people. They never bowed to injustice. They envisioned a world that is inclusive and harmonious. It is high time that the children of today learn about these true warriors.





# AFSPA

## ARMED FORCES SPECIAL POWERS ACT

### THE WHAT AND WHY OF IT



#### EMPOWERING THE ARMED FORCES TO MAINTAIN LAW AND ORDER



#### What is AFSPA?

- AFSPA is a Parliamentary Act granting special powers to the Armed Forces in areas classified as “disturbed areas”. The objective is to maintain law and order in the disturbed areas.
- It gives powers to the army, state and central police forces to shoot to kill, search houses and destroy any property that is “likely” to be used by insurgents in areas declared as “disturbed” by the home ministry.
- AFSPA is invoked when a case of militancy or insurgency takes place and the territorial integrity of India is at risk.
- Security forces can “arrest a person without warrant”, who has committed or even “about to commit a cognizable

offence” even based on “reasonable suspicion”.

- It also provides security forces with legal immunity for their actions in disturbed areas.

While the armed forces and the government justify its need in order to combat militancy and insurgency, critics have always pointed out cases of possible human rights violations linked to the act.

#### What are the Special Powers?

##### The ‘special powers’ include:


(a) Power to use force, including opening fire, even to the extent of causing death if prohibitory orders banning assembly of five or more persons or carrying arms and weapons etc are in force in the disturbed area.

(b) Power to destroy structures used as hide-outs, training camps




Gandhi, Jawaharlal Nehru, VB Patel and a host of others had been put behind the bars.

- **Viceroy Linlithgow promulgated the Armed Forces (Special Powers) Ordinance, 1942.**
- This gave the Armed Forces a “license to kill” when faced with internal disturbances.
- The Indian government promulgated four ordinances in 1947 to deal with internal security issues and unrest arising due to partition in Bengal, Assam, East Bengal and the United Provinces.




## AFSPA explained: How does it work exactly?



TRIPURA just went AFSPA FREE!

Which other states are under AFSPA right now?



ASSAM  
NAGALAND  
MANIPUR\*  
ARUNACHAL PRADESH\*  
MEGHALAYA\*

JAMMU & KASHMIR

\* some areas excluded

How does one officially declare a region to be 'disturbed'?

Section (3) of the AFSPA Act empowers the governor of the state or Union territory to issue an official notification on The Gazette of India.

Once declared 'disturbed', the region has to **maintain status quo for a minimum of three months**, according to The Disturbed Areas (Special Courts) Act, 1976.

But what about the state govt's role? Does it have any say in this?

The state governments, as in Tripura's case, can suggest whether the Act is required to be enforced or not. But under Section (3) of the Act, their opinion can still be overruled by the governor or the centre.

Is Tripura then the first state to completely do away with AFSPA?

No. It was applied in **Punjab and Chandigarh in 1983** due to secessionist movements and lasted for 14 years until there 1997.

### Post-Independence

The Indian Parliament has enacted three different acts under AFSPA for different regions:

1. **Armed Forces Special Powers (Assam and Manipur) Act, 1958.**
2. **The Armed Forces (Punjab and Chandigarh) Special Powers Act, 1983** (as the Khalistan movement died down AFSPA was withdrawn in 1997. While the Punjab government withdrew its Disturbed Areas Act in 2008, it continued in Chandigarh until September 2012 when the Punjab and Haryana High Court struck it down).
3. **The Armed Forces (Jammu and Kashmir) Special Powers Act, 1990.**

or as a place from which attacks are /or likely to be launched etc.

(c) Power to arrest without warrant and to use force for the purpose.

(d) Power to enter and search premises without a warrant to make arrest or recovery of hostages, arms and ammunition and stolen property etc.

### History

#### Pre-Independence

- The AFSPA – like many other controversial laws – is of a colonial origin.
- The Quit India Movement (1942) turned violent at many places across the country. Leaders like Mahatma

### Why is AFSPA controversial?

There have been multiple allegations of "fake encounters" and other human rights violations by the security forces in 'disturbed' areas.

A public interest litigation (PIL) filed in the Supreme Court





# THE JUDGEMENT

Not permissible for armed forces to use excessive force on citizens



If such excessive force leads to death, must be thoroughly enquired into by Independent body

The rule book of dos and don'ts in operations will apply whether it is militants, or terrorists or dreaded criminals

Armed forces personnel will face criminal prosecution in such cases of unjustified deaths



Can't cite AFSPA to claim immunity from all that is done in lawful discharge of official duty

Internal disturbances not war. Citizens can't be treated as enemy to justify shoot and kill



Even if person is armed in disturbed area can't be killed under presumption that he is an enemy



claimed that at least 1,528 extra-judicial killings took place in Manipur between 2000 and 2012. The petition alleged that a majority of these killings were carried out in cold blood while the victims were in custody and were allegedly tortured.

## Has there been any review of the Act?

In 2004, GOI appointed a five-member committee headed by Justice B P Jeevan Reddy to review the provisions of the act in the north eastern states.

The committee's report included the following recommendations:

- (a) AFSPA should be repealed; appropriate provisions should be inserted in the Unlawful Activities (Prevention) Act, 1967.
- (b) The Unlawful Activities Act should be modified to clearly specify the powers of the armed forces and paramilitary forces and
- (c) Grievance cells should be set up in each district where the armed forces are deployed.

Later the Second Administrative Reforms Commission (5th report) on public order has also recommended the repeal of the AFSPA.

## Why is AFSPA counter productive to Armed Forces?

- The Supreme Court laid down guidelines for the use of AFSPA in 1997; and in principle, unprofessional conduct, crimes and atrocities can still be prosecuted.

## Will AFSPA be repealed?

AFSPA is in vogue for the past 63 years in the NE states and the recent killings of 14 civilians (home





## Activists such as Irom Sharmila have protested against AFSPA. She undertook a 16-year-long hunger strike against the law.



Rampant killings in Manipur were on when the security forces and the banned militant groups were fighting endlessly. In 2000, when 10 civilians were allegedly gunned down by the 8th Assam Rifles at Malom MakhaiLeikal, 28-year-old Irom began her prolonged hunger strike against the atrocities in Malom initially and later against the AFSPA.

Irom was arrested for “attempting suicide” and remained in police custody for 16 years where she continued her hunger strike. Irom ended her strike in 2016 as it had little impact on the government. She then decided to enter politics to contest the 2017 assembly elections. She failed to get elected. Rejected by her own people, she moved on with her family life.



*National Socialist Council of Nagaland*

### Will the Centre then pause and re-think?

Many factors need to be considered:

- NE peace process is incomplete. Integration with mainstream India is slow and painstaking.
- Myanmar is reverting to military rule.
- Youth faction of NSCN (National Socialist Council of Nagaland) (Khaplang) remains a dangerous outfit.
- Insurgency in Manipur continues.
- Declining competence and authority with civil administration and central police forces.
- Long term employment of security forces for internal security duties is a double-edged weapon. The forces act on the orders of their political masters.

Counter Insurgency operations involving security forces can be tricky - a bad intelligence and one botched operation will erase all the good will earned over the years.



bound miners) besides 11 injured by security forces in the Mon district of Nagaland on 4th Dec 2021 has again put the spotlight on it.

NE India is an area of immense geo-strategic importance as it shares borders with five countries including Myanmar and China.



# Indian Scientists develop High-Performance Transistor Models

Producing high performance at microwave frequencies, these transistors can be used to make high-power Radio Frequency circuits.

A team of researchers from IIT Kanpur has developed high-performance, industry-standard models for Aluminium Gallium Nitride (AlGaN/GaN) High Electron Mobility Transistors (HEMTs). These allow systems to switch ON and OFF faster, operate at very high voltages and occupy less space, thus providing an edge over silicon-based transistors.

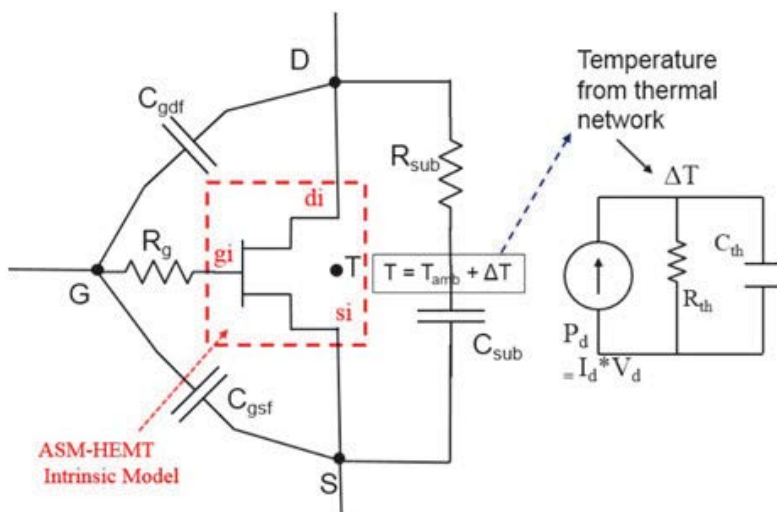
The physics-based, compact model, called the Advanced Spice Model for GaN-HEMTs (ASM-HEMT), simplifies and automates the design procedures for high-performance circuits. It can also predict AlGaN/GaN HEMT's behavior in circuit design.

Producing high performance

at microwave frequencies, these transistors can be used to make high-power Radio Frequency (RF) circuits owing to its high breakdown voltage. RF circuits include switches and amplifiers for wireless transmissions, which are invaluable in space and defense applications. AlGaN/GaN HEMTs also increase the performance of solid-state microwave circuits by a factor of five to ten, thus decreasing the overall chip size and cost.

They are the technology of choice for Low Noise Amplifiers (LNAs; used in mobile phones, base stations etc.) as they reduce the noise figure and complexity, while boosting the available bandwidth. To design such wideband power amplifiers, an accurate and robust RF GaN-HEMT model is essential.

The development involved characterizing the transistors using state-of-the-art characterization systems integrated in a setup used for measuring electronic characteristics like current, capacitance of semiconductor devices etc. This setup was partially funded by 'Fund for Improvement of S&T Infrastructure (FIST)' and Technology Development Programme (TDP) schemes of Department of Science and Technology.



# Mystery behind Higher Abundance of Heavy Elements in Carbon-Rich Stars unravelled

## DO YOU KNOW

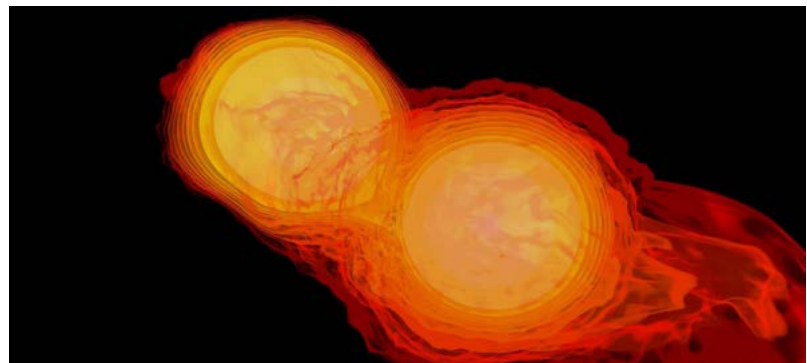
- **A binary star** is a system of two stars in orbit around each other. They can only be observed as distinct through a telescope.
- **Spectrum** (plural. Spectra) refers to a range of light waves.
- **Abundance ratio** indicates the relative number of individual elements present in a star to their number present in the Sun.
- **White Dwarf** is a small but dense star the size of a planet. It is formed when a low mass star has exhausted all its central nuclear fuel and lost its outer layers.

Scientists have finally cracked the mystery behind the unexpectedly higher presence of heavy elements in carbon-rich stars. They discovered that the materials were stolen from the low-mass companions of these stars, thus revealing that they were binary systems.

Professor Aruna Goswami and her doctoral students from the Indian

presences of heavy elements about 100-1000 times higher than that of the Sun.

To explain this discrepancy, the team analyzed high quality, high-resolution spectrum of the stars using multiple telescopes. They also used abundance ratios of key elements - carbon, barium, magnesium etc. as diagnostics. The research concluded that the heavy



Institute of Astrophysics, Bengaluru, studied several Carbon Enhanced Metal-Poor (CEMP) stars.

CEMP stars are mostly dwarf, sub-giant or giant - all of which are at the evolutionary stage where they cannot produce heavy elements, i.e., elements heavier than iron. However, the surface chemical composition of these stars reveals

elements were produced by low-mass, low-metallicity companions in an evolutionary phase called Asymptotic Giant Branch (AGB), and then absorbed by the CEMP stars through various mass transfer mechanisms. Further analysis confirmed that the companions have evolved to white dwarfs that are no longer detectable.





# MAJOR DHYAN CHAND SPORTS UNIVERSITY Foundation laid

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**The Campus  
will be  
equipped  
with modern  
and state of  
the art sports  
infrastructure**

"Meerut was Major Dhyhan Chand's 'karmsthal'. The Centre named the country's biggest sports award after him, and now, the Sports University will be dedicated to Major Dhyhan Chand Ji," said PM Modi, while laying the foundation stone of this Sports University in Meerut, UP on 2nd January 2022.

The Sports University will be established at an estimated cost of about Rs 700 crore and will have the capacity of training 540 men and 540 women sports persons. Spread over 91.38 acres, it will offer three-year Bachelor degree in

Sports. The proposed courses for the university are Physical Education, Health & Applied Sports Sciences, Sports Management & Technology, Sports Coaching, Sports Journalism & Mass Media & Technology and Adventure sports.

The campus will be equipped with modern and state of the art sports infrastructure including synthetic hockey ground, football ground, grounds for basketball, volleyball, handball, kabaddi, lawn tennis court, gymnasium hall, synthetic running stadium, swimming pool, multipurpose hall and a cycling velodrome.



**In the New Education Policy (NEP 2020) priority has been given to sports and is kept in the same category as science, commerce or other studies.**



PM said in the last few years, the government has given top priority to sports persons to get four tools – resources, modern facilities for training, international exposure and transparency in selection. In the New Education Policy (NEP 2020) priority has been given to sports and is kept in the same category as science, commerce or other studies.

The sporting ecosystem comprising sports, sports

management, sports writing, sports psychology etc creates new possibilities. With resources, a sporting culture takes shape and a sports university will play a big role in this. Now talents are spotted in remote villages under ‘Khelo India Khelo’ programme. Stadiums which existed only in cities are also being built in villages in order to encourage villagers to play a sport of their choice, remarked the PM.







## *Kalpana Chawla Research Centre* **Inaugurated**

**O**n 3rd January 2022, in a move strengthening the space sector of the country, Union Defence Minister Rajnath Singh inaugurated Kalpana Chawla Centre for Research in Space Science and Technology at Chandigarh University. Additionally, he also launched the University's Defence Scholarship Scheme, worth Rs. 10 crores, for the wards of Defence Personnel of the three services.

Named after the first woman of Indian origin to go to outer space, the Centre's objective is to train students in space science, satellite development and meeting future challenges in space research. **The space sector is deeply connected with mapping, imaging and**



**connectivity facilities, weather forecast, disaster management, speedy transportation as well as border security.**

The Centre will also function as a ground control station for Chandigarh University's Student Satellites (CUSat), along with a Geo-Spatial Centre for research. CUSat is an in-house, nano-satellite designed by the students, to be launched into space along with 75

others on the eve of the 75th Independence Day.

"In the 21st century, the future of India can be secured only when you have a gleam in your eyes to reach the stars and planets," Rajnath Singh stated. "More Indians like Aryabhata, Vikram Sarabhai, Satish Dhawan and Kalpana Chawla will emerge from amongst you all if you eye different planets and constellations."

Proclaiming Kalpana Chawla - who lost her life in the 2003 Columbia shuttle disaster - as a symbol of women empowerment, he urged citizens to motivate their daughters and maintain the late astronaut's enthusiasm. He also called for increased participation of women in all sectors.



# Harpreet Chandi

## Journey to the South Pole

**C**aptain Harpreet Chandi, a 32-year-old British army officer and physiotherapist is the first woman of Indian-origin to complete a solo unsupported trek to the south pole. Also known as ‘Polar Preet’, she is the first woman of colour to complete this solo expedition.

Chandi spent two years planning and training. Some of her training includes pulling a tyre along the Derby streets, a 27-day trip to Greenland to become accustomed to the extreme weather conditions, and taking part in ultra marathons.

Chandi set off on her journey to the South Pole on 24th November 2021 from Hercules Inlet. She aimed to complete this journey in 45 days. In spite of experiencing temperatures as low as  $-50^{\circ}$  and wind speeds around 60 mph, she skied 1,127 km across Antarctica in 40 days, seven hours and three minutes; 5 days ahead of her schedule. She is now the third fastest woman to trek across the continent and the first person to reach the South Pole on foot in two years.

“I knew nothing about the polar world three years ago and it feels so surreal to finally be here. It was tough getting here and I want to thank everybody for their support,” wrote Chandi. She added, “This expedition was always about so much more than me. I want to encourage people to push their boundaries and to believe in themselves, and I want you to be able to do it without being labelled a rebel.”





# UP Best State in Water Conservation

**I**t is significant that the National Water Conservation Awards have been initiated and states awarded and recognized for their

water conservation efforts. Ministry of Jal Shakti was constituted in 2019, empowered to deal with matters related to water resources and its management. It was formed by merging Ministry of Water Resources and Ministry of Drinking Water and Sanitation. It adjudicates inter-state and international issues on water sharing. In its annual awards initiative Uttar Pradesh has been awarded the Best State in its effort in water conservation for adopting a holistic approach towards management of water resources. It was followed by Rajasthan in second place and Tamil Nadu in third place. Regional awards were also in place, Muzaffarnagar







## DO YOU KNOW ?

- The per capita water usage for Indians is one of the lowest in the world. The per capita availability of fresh water has dropped from 1950 level to 1700 cu m today.
- UP's Banda district has entered the Limca Book of Records for the construction of 2,605 contour trenches and holding 469 Jal Chaupals (village water parliaments) in a single month.

(UP) Shahid Bhagat Singh Nagar (Punjab) were winners for north zone. Thiruvananthapuram was the winner for south zone, Indore for west and East Champaran for east zone were declared winners.

Some of UP's major achievements have been the effective reduction of pollution in the Ganga, its conservation and rejuvenation. 104 sewage treatment plants with a combined capacity of 3298 million litres per day have been set up leading to a significant improvement in the quality of major rivers.

The department of rural water supply made preparations to provide water supply to 18 lakh families in



the first phase of Har Ghar Nal Yojana under Jeevan Mission and Namami Gange programme.

*Har Khet Ko Pani* programme also ensured extension of irrigation facility to various regions of Bundelkhand. Emphasis on rain water harvesting is another measure. Consequently, work is afoot to build 269 check dams and 219 ponds.

Four community ponds in Mahoba district of Bundelkhand were adopted for removal of accumulated silt and upgradation leading to collection of additional 77,000 cu m rainwater in three villages. The farmers were also facilitated to build farm ponds on their land for irrigation by educating them of subsidies and help them in getting the funding provided by local government for this purpose. Till date nearly 52 ponds have already been constructed with a combined capacity of 90,000 cu m of water. Additionally, 550 farmers have been mobilized to benefit from the scheme.





# Alka Mittal

## becomes ONGC's First Woman Chairperson and MD



**Dr** Alka Mittal became the first woman interim Chairperson & MD of ONGC. She fostered the philosophy of equal opportunity employer and inclusive workplace ecosystem at ONGC.

She holds a Master's in Economics, an MBA in HR Management and a doctorate in Commerce and Business studies.

### Career highlights

- ▶ **First woman full time director of ONGC(HR)**
  - Used sustainable practices saving time, money, and resources.
- ▶ **Chief Skill Development Officer**
  - Streamlined ONGC Skill Development Centers.
  - Implemented the National Apprenticeship Promotion Scheme (NAPS) by engaging with 5000 apprentices across work centres.
- ▶ **“Most Admired Leader Award”** by Forum for Emotional Intelligence Learning 2020.



# Most Empowered Woman of 19<sup>th</sup> Century



**S**avitribai K Patil was born in 1831 and married to Jyotirao Phule at the age of 9. Savitribai, who learnt to read and write from Jyotirao Phule, was the First Female Teacher. At 17, along with her husband, she started India's first school for girls in Pune. Later, they opened more than 15 schools.

That was a historic movement for women education in India. The University of Poona was named The Savitribai Phule Pune University in her memory. She made many reforms for women equality in British India. Her reform actions that supported all sections of society will be remembered forever.







# ELECTION DATES announced in 5 States

**E**lections form the base of democracy. The holding of timely election is the "essence of maintaining democratic governance," the Election Commission said while declaring elections in five states.

## DO YOU KNOW ?

- Only company authorized to make the indelible ink-**Mysore Paints and Varnishes Pvt Ltd.**
- **EVMs save 10,000 tonnes of paper.**

### VOTERS

<b>MEN</b>	: About 18 crore
<b>WOMEN</b>	: About 8.5 crore
<b>POLLING BOOTHS</b>	: 1620
<b>ASSEMBLY SEATS</b>	: 690

### HIGHLIGHTS

- No road shows, padyatras, cycle or bike rallies and processions allowed till 15th January.
- CVIGIL mobile application can be used by voters to capture the live photo or video of distribution of money and freebies. Within 100 minutes of complaint, officials of Election Commission will reach the place of offence.
- All election officials and employees will be vaccinated with 'precautionary dose'.
- It is mandatory for political parties to upload on their website





# ELECTIONS 2022: THE SCHEDULE

The dates of the much-anticipated Assembly elections in Uttar Pradesh, Punjab, Uttarakhand, Goa and Manipur were announced by the Election Commission of India on January 8, 2022.



Elections will take place in seven phases from **February 10**. Results will be declared on **March 10**.

Notifications: **January 14, 21, 25 and 27; February 1, 4 and 10**

Polling Dates: **February 10, 14, 20, 23 and 27; March 3 and 7**











Counting Date  
**March 10**

No. of voters  
**18.34 crore**

First-time voters  
**24.9 lakh**



Chief Election Commissioner,  
**Shri Sushil Chandra**

 <b>Goa</b> 	<p><b>Chief Minister</b>  <b>Pramod Sawant (BJP)</b>                      Polling date: <b>February 14</b>                      Last date of filing nominations: January 28                      Last date of withdrawal: January 31</p>	<p>No. of seats:  <b>40</b></p>
 <b>Manipur</b> 	<p><b>Chief Minister</b>  <b>Nongthombam Biren Singh (BJP)</b>                      Polling date: <b>February 27 and March 3</b>                      Last date(s) of filing nominations: February 8, 11                      Last date(s) of withdrawal: February 11, 16</p>	<p>No. of seats:  <b>60</b></p>
 <b>Punjab</b> 	<p><b>Chief Minister</b>  <b>Charanjit Singh Channi (INC)</b>                      Polling date: <b>February 14</b>                      Last date of filing nominations: January 28                      Last date of withdrawal: January 31</p>	<p>No. of seats:  <b>117</b></p>
 <b>Uttarakhand</b> 	<p><b>Chief Minister</b>  <b>Pushkar Singh Dhami (BJP)</b>                      Polling date: <b>February 14</b>                      Last date of filing nominations: January 28                      Last date of withdrawal: January 31</p>	<p>No. of seats:  <b>70</b></p>
 <b>Uttar Pradesh</b> 	<p><b>Chief Minister</b>  <b>Yogi Adityanath (BJP)</b>                      Polling date: <b>February 10, 14, 20, 23 and 27 March 3 and 7</b>                      Last date(s) of filing nominations: January 21, 28; February 1, 3, 8, 11 and 17                      Last date(s) of withdrawal: January 27, 31; February 4, 7, 11, 16 and 21</p>	<p>No. of seats:  <b>403</b></p>

## DO YOU KNOW ?

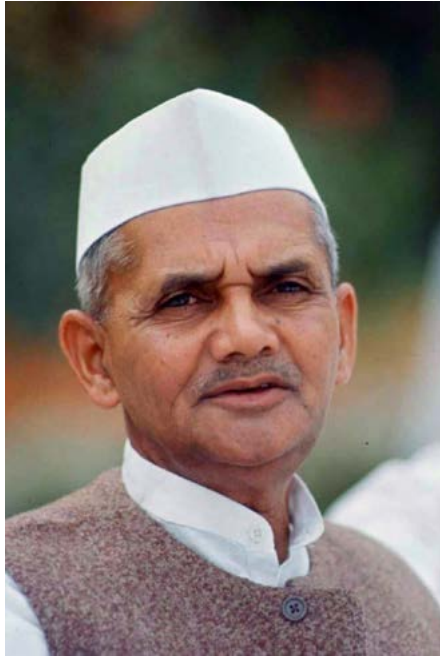
- A 6-volt alkaline battery is used to run the EVMs; can be used in areas with no power connections.
- Voter Verifiable Paper Audit Trail (VVPAT) machine verifies that the citizen's vote has been correctly placed.

detailed information regarding individuals with pending criminal cases selected as poll candidates. They will also have to give a reason to select the candidate.

- Election Commission has made arrangements for an adequate number of EVMs and VVPATs.

- All polling stations will have sanitisers and masks.
- At least one polling station will be managed exclusively by women in every Assembly constituency.
- Political parties must ensure that their supporters do not indulge in hate speeches and fake news.





# LAL BAHADUR SHASTRI

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**As a life member of the “Servants of the People Society” he worked for the upliftment of Harijans.**

**H**ello, Members of Generation Next!!!

Let’s learn about Lal Bahadur Shastri, the second Prime Minister of our country.

Born on 2nd October 1904 in Uttar Pradesh, he lost his father when he was hardly one and a half years old. He grew up in his maternal grandfather’s house. When he was in school, Shastri dropped his caste-based surname, “Shrivatsa”. He was greatly influenced by one of his teachers Nishkameshwar Prasad Mishra (who also supported him financially) which resulted in

Shastri gaining a deep interest in our freedom struggle. He was also influenced by the books of Swami Vivekananda. On graduating from Kashi Vidyapeeth in 1926, he was given the title “Shastri” meaning “scholar”. This title later became a part of his name.

As a life member of the “Servants of the People Society” he worked for the upliftment of Harijans. In 1928, he became an active member of the Congress Party. For participating in satyagrahas, he was jailed a couple of times.

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Today, if we are not only self sufficient in food and milk, but also export these items, we owe it to Lal Bahadur Shastri.



*Lal Bahadur Shastri with party leaders*

Shastri later became a member of Jawaharlal Nehru's cabinet holding important portfolios like Railways, Commerce & Industry and Home. When Nehru passed away in May 1964, there were apprehensions about who would fill his "large shoes". Shastri though short in physical appearance soon dispelled these fears and proved to be the man that India needed most at that time. There were chronic food shortages necessitating regular food imports and he addressed this by promoting the Green Revolution which resulted in multi fold increase in food production. Similarly he mentored the White Revolution and supported the creation of National Dairy Development Board. Today if we are not only self sufficient in food and milk, but also export these items, we owe it to Shastri.

During his premiership, Pakistan launched an unprovoked aggression against India. Shastri was clear, that while we desire peaceful coexistence, force would be met with force. He gave complete freedom to our Armed

Forces and they not only repulsed the enemy but went deep into Pakistani territory. Our army was within striking distance of Lahore, when the United Nations brokered a ceasefire and the war ended in September 1965. Subsequently, in January 1966, Alexei Kosygin, the then PM of USSR, organized a Peace Summit in Tashkent, Uzbekistan which led to the signing of the Tashkent Declaration by Shastri and the President of Pakistan.

Sadly, within a day after signing this accord, Shastri passed away in Tashkent on 11th January 1966. He was posthumously awarded the Bharat Ratna.

His slogan "**Jai Jawan! Jai Kisan!**" is inspirational even today and raises the morale of our jawans and farmers.

Shastri was our PM for only 19 months, but his simplicity, scrupulous honesty and achievements in various fields (not all are mentioned here) remain monumental.







# RENAULT exports more than 1 Lakh “Make in India” vehicles

## DO YOU KNOW

- **SUV** - Sports Utility Vehicle
- **MPV** – Multi-purpose Vehicle
- **Sub 4m** – under 4 m long

Renault India achieved 1 Lakh Exports milestone reaffirming its 'Make in India' campaign and significantly demonstrating the competence of India's design, engineering and manufacturing capabilities.

Renault commenced its manufacturing facility at Oragadam, Chennai in 2010. It exported Duster SUV in 2012. It now has a production capacity of 480,000 units annually.

“Make in India” is designed to facilitate investment, foster

innovation, enhance skill development, protect intellectual property and build best in class manufacturing infrastructure.

**KWID**, **TRIBER** and **KIGER** are currently exported to 14 countries in Asia, Africa and Oceania regions. These are designed in collaboration with French, developed and produced in India for the Indian and international markets.

**KWID**, a compact car with SUV inspired look, digital instrument panel and touch

Renault Kiger 2021						Full Spec
Price (Ex-Delhi)	Displacement	Transmission	Max Power(ps)	Max Torque(Nm)	Mileage	
Starts Rs 5.45 Lakhs	999cc	CVT	72	152	-NA-	

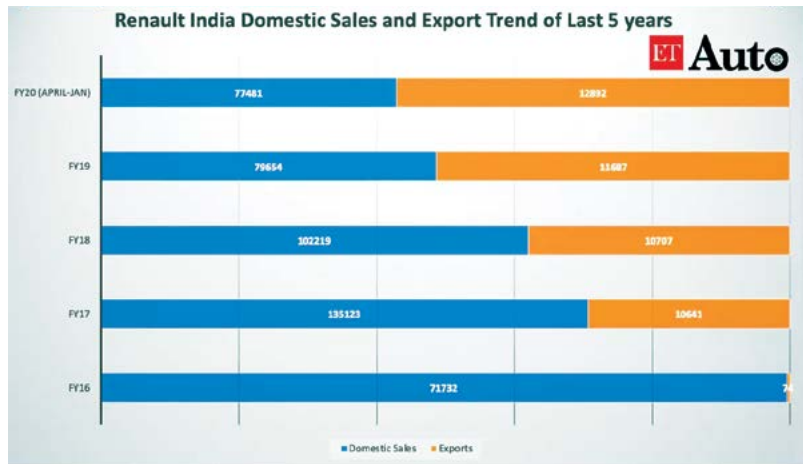
Renault Kwid 2020						Full Spec
Price (Ex-Delhi)	Displacement	Transmission	Max Power(ps)	Max Torque(Nm)	Mileage	
Starts Rs 2.92 Lakhs	999cc	Automatic	54	91	25.17 Kmpl	

Renault Triber 2021						Full Spec
Price (Ex-Delhi)	Displacement	Transmission	Max Power(ps)	Max Torque(Nm)	Mileage	
Starts Rs 5.3 Lakhs	999cc	AMT	72	96	20.5 Kmpl	



**KWID**



**KIGER**



**TRIBER**



infotainment system. It is the company's most affordable offering for the Indian market.

**TRIBER** a sub-4m 7 seat MPV is spacious, ultra-modular and one of the exported models. It has 4-star Global NCAP (New Car Assessment Program) rating.

**KIGER** a sub-4m SUV has received an overwhelming response

in Nepal and South Africa.

Renault is now focused on strengthening its presence and driving growth momentum across its product portfolio. Future vehicles from the brand could include Electric Vehicles(EVs) such as Renault Zoe hatchback and Kwid-based electric cars to be exported to newer African and South East Asian countries.







# UV DISINFECTANT to combat Covid

**This new technology will also remain relevant in the post-COVID era.**

**T**he Council of Scientific and Industrial Research (CSIR) has developed a new disinfectant technology to combat COVID-19 in AC buses, train coaches and other closed spaces.

According to Dr. Jitendra Singh, Union Minister of State (Independent Charge) for the Ministry of Science and Technology, the UV-C disinfectant technology is completely effective in mitigating the airborne transmission of the SARS-CoV-2 virus. Furthermore, the new technology - which was developed by CSIR's Central Scientific Instruments Organization (CSIO) - will also remain relevant in the post-COVID era.

Initial testing has already been completed in air-conditioned buses,

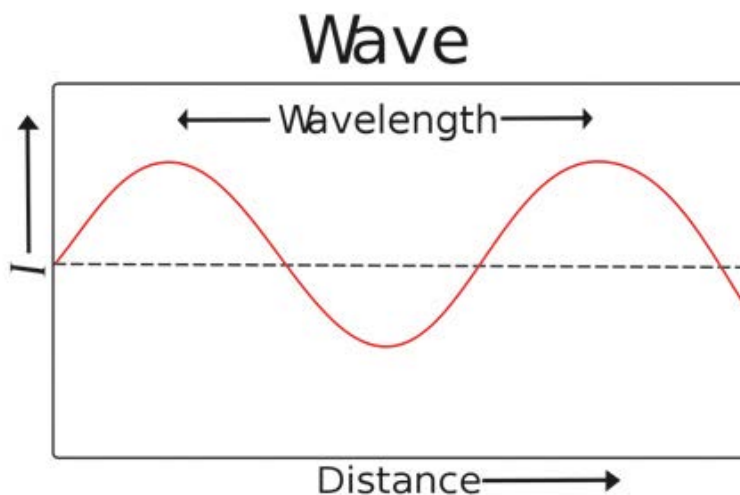
as well as the railway coaches between Bandra and Chandigarh, which covers a distance of 1000 kilometers. They are contemplating installation of the technology within the coaches of all premier and super-fast trains including the Rajdhani and the Tejas express.

The Ministry of Science and Technology, RDSO (Research Designs and Standards Organization), Lucknow, has recommended the use of this technology in all railway coaches in a phased manner. Further installations in malls, auditoriums, classrooms and large conferences have also been planned to render a relatively safe environment for indoor activities.

The disinfectant technology

## DO YOU KNOW ?

- **SARS-CoV-2**- Severe Acute Respiratory Syndrome Corona virus 2.
- **UV-C** is the most dangerous type of ultraviolet radiation and can cause adverse effects in all organisms, ranging from mutagenic (causing mutations) to carcinogenic (causing cancers).
- **Wavelength** is the distance between two adjacent peaks of a wave.
- Anywhere between 240 nm to 280 nm (nanometer) wavelengths of UV radiation can be used for disinfection and decontamination.



has been built according to the necessities of deactivating the SARS-CoV-2 virus contained in an aerosol, with the required ventilation measures, necessary user and safety guidelines, as well as tested bio-safety standards etc. In order to disinfect the interiors from any and all kind of airborne infections, the UV-C also deactivates fungi, bacteria and other viruses with appropriate dosages using 254nm ultraviolet light.

“It is worth mentioning that this technology not only destroys the nucleus of corona virus, rendering it unable to replicate, but it is also a green solution for this purpose,” a statement from the Northern Railways (NR) revealed. “Lab tests have been carried out periodically after disinfection by government-certified labs showing 99.99% reduction in bacteria, viruses and germs.”

Singh released the guidelines issued by the CSIR on Disinfection Technologies for Mitigation of

SARS-CoV-2 transmission. He further stated that CSIR will write to the Election Commission of India to use this technology for limited-capacity indoor meetings for the ensuing Assembly polls in 5 states, especially in the wake of their current ban on physical road shows and rallies. The Commission had recently allowed a similar gathering in the poll-bound states, subject to adherence to various Covid protocols, including a maximum attendance of only 50 % capacity (300 seats) of the auditorium.

The technology has also been used for the sanitization of the official chambers of the Lok Sabha, the central hall and two committee rooms of the Parliament. Dr. Singh also stated that he will attempt installation of this technology ahead of the upcoming budget session. It is now open for roll-out for use by the general public.

Despite installation of the technology, he cautioned citizens to strictly follow Covid-appropriate behaviour, including the use of face masks and hand sanitizers, avoiding crowds and maintaining social distancing.

The CSIR is an autonomous body funded by the Ministry of Science and Technology.







NAMAKKAL GOVERNMENT MEDICAL COLLEGE AND HOSPITAL

நாமக்கல் அரசு மருத்துவக்கல்லூரி & மருத்துவமனை

## Tamil Nadu gets

# 11 New Medical Colleges

With the addition of the new medical colleges, Tamilnadu now boasts of 10,375 MBBS seats- the highest in the country.

The role of medical colleges is to maintain and enhance professionalism of medical practitioners for the benefit of the society. In this light, PM Narendra Modi inaugurated eleven government medical colleges in Tamil Nadu virtually on 10th January 2022. **The new medical colleges have come up in Virudhunagar, Namakkal, Nilgiris, Tiruppur, Tiruvallur, Nagapattinam, Dindigul, Kallakurichi, Ariyalur, Ramanathapuram and Krishnagiri districts.** As per the statement released by the government, these medical colleges are established in line with the prime minister's constant endeavors to promote affordable medical education and improve health infrastructure in all parts of the country.

**The mass initiative has created a cumulative capacity**

**of 1450 medical seats, which is expected to benefit around 1.5 crore people in these districts and the adjoining areas.** Each of these colleges would have 33 departments with basic facilities like dissection halls, laboratories, skill labs, central library, lecture halls, and examination halls, among others. They would also have hostel facilities for students and residential quarters for the teaching staff.

Each of these hospitals would have Emergency Department, Intensive Medical Care Unit, Intensive Cardiac Care Unit, Surgical Intensive Care Unit, Paediatric Intensive Care Unit, Neonatal Intensive Care Unit, Sick Newborn Intensive Care Unit and Obstetric ICU, among others.

With the addition of the new medical colleges, Tamil Nadu now boasts of 10, 375 MBBS seats - the highest in the country.



# Export of Advanced Light Helicopter to Mauritius

**A**s a part of Indian Government's vision to boost the Defence exports, Hindustan Aeronautics Limited (HAL) has signed a contract with the Government of Mauritius (GoM) for export of one Advanced Light Helicopter (ALH)-MkIII for the Mauritius Police Force.

The contract was signed by B.K. Tripathy, General Manager, Helicopter Division-HAL and O.K. Dabidin, Secretary of Home Affairs, Government of Mauritius.

“With this contract, HAL and

the Government of Mauritius have further strengthened long-standing business relations spanning over three decades”, said HAL.

Mauritius already has Dornier Do-228, a general-purpose aircraft built by HAL.

## ALH Mk III

- ALH Mk III is a variant of the indigenously designed ALH-DHRUV.
- A multi-role, multi-mission versatile helicopter in 5.5 tonne category.

- Proven its ability in various roles including numerous lifesaving missions during natural calamities in India and abroad.
- More than 335 ALHs have been produced till date logging around 3,40,000 cumulative flying hours.

## Features

- Shakti engine (used in Light Combat Helicopters)
- Digital Moving Map
- Electronic Warfare Suite (Electronic defence against radars)
- Electro Optical pod (To track and locate targets)
- Infra-Red Suppressor (To cool the exhaust)
- Health & Usage Monitoring system
- Solid State Digital Video Recorder (SSDVR)
- Engine Particle Separator (to remove contaminant particles in harsh conditions)
- High altitude operations







# *India Signs* **BrahMos Missile** *deal with Philippines*

**This deal is significant for India as it is the biggest defence export in Indian history.**

India and the Philippines signed the \$374.96 million missile deal on 28th January 2022. BrahMos Aerospace Private Limited (BAPL) has signed a contract with the Department of National Defence of the Republic of Philippines for the supply of Shore based Anti-Ship Missile System to the Philippines.

The BAPL is a joint venture company of the DRDO. The missile is developed as a joint venture between DRDO and the Federal State Unitary Enterprise NPO Mashinostroyeniya (NPOM) of Russia.

This move from the Philippines and similar interests from Vietnam will place BrahMos on the world

map as countries in Asia seek to balance China's aggressive moves. This is significant for India as it is the biggest defence export in Indian history.

## **BrahMos Missile**

Named after two rivers, India's Brahmaputra and Russia's Moskva, BrahMos is a medium-range ramjet supersonic cruise missile for launch from submarines, ships, aircrafts, or land. It has a flight range of up to 290 km with supersonic speed all through the flight, leading to shorter flight time and improved accuracy. Stealth technology and guidance system with advanced embedded software provides the missile with special features.



*Defence Undersecretary Raymundo Elefante and India's Ambassador to the Philippines Shambu S. Kumaran signed an "implementing arrangement" for "procurement of defence material and equipment".*



BrahMos is the first supersonic cruise missile to be in service. It is a two-stage missile with solid propellant booster engine as its first stage which brings it to supersonic speed and gets separated. The liquid ramjet then takes the missile closer to 3 mach speed in cruise phase.

### **BrahMos Manufacturing Centre**

Defence Minister Rajnath Singh laid the foundation stone for Defence Technology & Test Centre (DTTC) and BrahMos Manufacturing Centre in Lucknow, UP on 26th December 2021. He said, "We want to manufacture BrahMos on the Indian soil so that no country has the audacity to cast an evil eye on India," referring to the missile that is capable of carrying a nuclear warhead.

The 200-acre manufacturing unit would be ready over the next two to three years and start production at a rate of 80-100 BrahMos missiles per year.

### **New Version of BrahMos Test-Fired**

The naval variant of BrahMos was successfully test-fired on 20th January 2022 from Odisha. The missile "was equipped with advanced indigenous technologies and followed a modified optimal trajectory for enhanced efficiency and improved performance.

The missile with the modified control system has been fine tuned to achieve an enhanced capability.

The flight test was monitored by all the sensors of the range instrumentation including telemetry, radar and electro-optical tracking systems deployed including on ships along the eastern coast."







# INDIAN ARMY sets up New Quantum Computing Lab & Artificial Intelligence Centre

**W**hen the first computer was invented, it was the size of an entire room. Today we have devices a million times more powerful inside our pockets. The next evolution of digital computing however, will fundamentally change how computers and smart devices work.

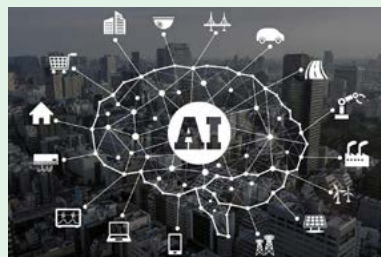
Quantum computing is a rapidly expanding field with some of the best brains from Indian Army working on it. It is at the very cutting edge of technological advancement. Not using traditional binary bits (1s and 0s) as the basis of operation, quantum computers use Quantum bits (q-bits). Q-bits can have many more positions between 0 and 1.

Because of this they can perform much more complex calculations at faster rates enabling far more powerful applications.

Established in December 2021, with the support of the National Security Council Secretariat (NSCS) the lab also has a particular focus on Artificial Intelligence research. Research performed here will help with applications both in

the field of defence and in the field of research. These technologies can be used for powerful cryptographic applications to safeguard national secrets from bad actors, model sub-atomic simulations for advanced particle physics research, development of AI models for a variety of applications and much more.

The lab has multiple stakeholders ranging from IIT institutions, defence research organisations, corporate firms and tech start-ups. This venture aims to spearhead research and development in emerging technologies to ensure that India can become a pioneer in the field of quantum computing.



# Yoga

India's gift  
to the world  
for healthy living

**Yoga continued to develop as a systematic study and practice during the fifth and sixth centuries BCE in ancient India.**

## Introduction

**Y**oga is essentially a spiritual discipline based on an extremely subtle science, focusing on bringing harmony between mind and body. It is the art and science of healthy living. The word 'yoga' is derived from the Sanskrit root 'yuj', meaning 'to join' or 'to yoke' or 'to unite'. As per yogic scriptures the practice of yoga leads to the union of individual consciousness with that of the Universal Consciousness, indicating a perfect harmony between the mind and body, Man and Nature. It is the technology of aligning individual geometry with the cosmic, to achieve the highest level of perception and harmony.

The aim of yoga is self-realization, to overcome all kinds of sufferings leading to 'the state of liberation' (Moksha) or 'freedom'

(Kaivalya). Living with freedom in all walks of life, health and harmony shall be the main objectives of yoga practice. Yoga also refers to an inner science comprising of a variety of methods through which human beings can realize this union and achieve mastery over their destiny.

## The Origin of Yoga

The earliest written accounts of yoga appear in the Rig Veda. It is difficult to establish the date of yoga from this as we are unable to reasonably say when the Vedas, more so Rig Veda was codified. Yoga continued to develop as a systematic study and practice during the fifth and sixth centuries BCE in ancient India. The most comprehensive text on yoga, the Yoga Sutras of Patanjali, date to the early centuries of the Common Era; He did not invent yoga. Yoga was



## DO YOU KNOW ?

- About 300 million people practise globally; > 36 million people practise it in the U.S. alone.
- WHO mentions yoga as a means to improve health in its Global Action Plan on physical activity 2018–2030.



already there in various forms which he assimilated into a system. In the yogic lore, Shiva is seen as the first yogi (Adiyogi) and the first Guru (Adi Guru).

### Diversity of Yoga

The first yoga text prescribes adherence to "eight limbs" ("Ashtanga Yoga") to quiet one's mind and merge with the infinite.

The widely followed yoga practices are *Yama* (five abstentions), *Niyama* (five observances), *Asana* (Postures), *Pranayama* (Suspending Breath), *Pratyahara* (Abstraction), *Dharana* (Concentration), *Dhyana* (Meditation), *Samadhi* (Fully integrated Consciousness), *Bandhas* (Lock) & *Mudras* (Gestures), *Shatkarmas* (Cleansing practices), *Yukta-ahara*, (Holistic food), *Yukta karma* (Right Action) and *Mantra japa* (Chanting of the Sacred Words) and many more.

Over the long history of yoga, different schools have emerged and there are numerous examples of subdivisions and synthesis. It is common to speak of each form of yoga as a "path" to enlightenment.

Thus, yoga may include love and devotion (Bhakti Yoga), selfless work (Karma Yoga), knowledge and discernment (Jnana Yoga) or an eight-limbed system of disciplines emphasizing meditation (Raja Yoga). These practices occupy a continuum from the religious to the scientific. They need not be mutually exclusive. A person who follows the path of selfless work might also cultivate some knowledge and devotion. Some people (particularly in Western cultures) pursue yoga as exercise divorced from spiritual practice.

Patanjali presents the goal of yoga as 'the cessation of mental fluctuations' (cittavrttinirodha), an achievement which gives rise to the possibility of stable meditation and thus deeper states of absorption (dhyana or samadhi).

### Modern Period

In the late 1800s and early 1900s, yoga masters began to travel to the West, attracting attention and followers. This began at the 1893 Parliament of Religions in Chicago, when Swami Vivekananda wowed the attendees with his lectures





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**Most yoga practitioners experience an altered perspective of life; an evolution in perceived purpose and values that leads to profound life changes.**

on yoga and the universality of the world's religions. Several electrifying addresses he delivered brought him instant fame. He spent the next several years in the US giving lectures and teaching yoga.

In the 1920s and 30s, Hatha Yoga was strongly promoted in India with the work of T. Krishnamacharya, Swami Sivananda and other yogis. Krishnamacharya opened the first Hatha Yoga school in Mysore in 1924 and in 1936, Sivananda founded the Divine Life Society on the banks of the holy Ganga. Krishnamacharya produced three students that would continue his legacy and increase the popularity of Hatha Yoga: B.K.S. Iyengar, T.K.V. Desikachar and Pattabhi Jois. Sivananda wrote over 200 books on yoga and established nine ashrams and numerous yoga centres located around the world.

### Benefits of Yoga

The practice of yoga has been linked to several health benefits that include decreasing chronic pain, stabilization of blood pressure, and stress reduction. Supportive data also suggest that yoga improves, strength, flexibility, breathing, balance, spine and mental health, and blood flow. Studies suggest possible benefits of yoga for stress management, mental/emotional health, promoting healthy eating/activity habits, sleep and balance etc.

Most yoga practitioners experience an altered perspective of life; an evolution in perceived purpose and values that leads to profound life changes.

### Meditation and Pranayama

Meditation is a technique – such as mindfulness or focusing the mind on a particular object, thought, or activity – to train attention

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## “ Krishnamacharya opened the first Hatha Yoga school in Mysore in 1924.”

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and awareness and achieve a mentally clear and emotionally calm and stable state. Meditation is practised in numerous religious traditions. The earliest records of meditation (dhyana) are found in the Upanishads. It is actually part of yoga, being the higher state of consciousness.

Pranayama ('Pran' = 'breath' or 'life force'; 'ayama' = 'control') is called "the yoga of breathing". This comprises many breathing exercises, focusing on every inhalation and exhalation. It is believed to be the perfect and most efficient way to keep the mind under control. One gets internal stability and can concentrate on one's goals.

### The International Day of Yoga

The International Day of Yoga (IDY) has been celebrated annually on 21st June since 2015. It being the longest day of the year in the Northern Hemisphere is observed as a day of cultural significance in different parts of the world. More than 100 countries celebrate IDY.

In conclusion, Yoga has always been approached as a technology for inner well being. Anyone who practises yoga with involvement can reap its benefits, irrespective of one's faith, ethnicity or culture. That the body and mind are in close relationship must be understood. Equally, however, one can practise yoga as a way to feel closer to any higher power one believes in.





# BELUR and HALEBIDU



**B**elur and Halebidu are famous for their ancient Hindu and Jain temples of marvellous engineering and intricate architecture. Located in Hassan district of Karnataka, they were built during the Hoysala dynasty. The twin towns give us a glimpse of the regal past of the state and its culture.

Belur was the erstwhile capital of Hoysala Empire. It is a Vaishnava Hindu pilgrimage centre near the foothills of the Western Ghats. While the Chennakeshava Temple is the most important, the oldest is the Sankarshvara temple dedicated to Lord Shiva. Vishnuvardhana and his successors were adventurous in their artistic expressions. Hoysalas followed the footsteps of Chalukyas, in the art and architecture and their carvings were extremely ornate and intricate. Chennakeshava Temple was commissioned by Vishnuvardhana, the Hoysala king himself to celebrate an important military victory in 1117 CE against the Cholas in the Battle of Talakad. Since the king wanted an extraordinary temple, it has been built in an architectural style

(Hoysala Style) new to the region. The monument is exceptionally large and its decoration is very lavish. The decorations for this temple continued after the rule of Vishnuvardhana by his successors and it took nearly 103 years to complete this temple.

Halebidu on the other hand is surrounded by low lying mountains and rivers.

Halebidu (Hale'beedu = "the ruined city") was then known as Dwarasamudra (gateway to the seas). It was the capital of Hoysalas before they moved to Belur. The height of Hoysalan art and architecture survives in the form of Hoysaleswara Temple dedicated to Lord Shiva. Wall inscriptions include endless display of gods, human, animals and images of war, hunting, music and dance. The intricate carvings on stone, the attention to detail on human and animal forms is just mind boggling. To think that all this was done in the 14th century is really awe-inspiring. Visiting these places of excellence in art, engineering and aesthetics fills our heart with pride of being an Indian.



# Clouded Leopard spotted in Nagaland



## FACT FILE

### COMMON NAME:

Clouded Leopard

### SCIENTIFIC NAME:

*Neofelis nebulosa*

**TYPE:** Mammals

**FAMILY:** Felidae/  
Pantherinae

**DIET:** Carnivore

**GROUP NAME:** Leap

**SIZE:** Body: 2 to 3 feet

**TAIL:** up to 3 feet

**WEIGHT:** Up to 50  
pounds

In a significant finding in the world of wildlife and ecology, researchers have clicked photographs of clouded leopards in a Himalayan community-owned forest in Nagaland. The animals were spotted along the Indo-Myanmar at 3700 m — arguably one of the highest reported altitudes where they have been sighted in the world till date.

Clouded leopards have large, dexterous paws with specialized footpads for gripping branches. Specialized anklebones allow varied position for climbing, including climbing head first down trees.

Another distinctive feature is the long canine teeth. These canines are longer in proportion to skull size than those of any other species of wild cat. Two adults and two cubs have been found inhabiting the high-altitude community forest of Thanamir



village in eastern Nagaland's Kiphire district. The 65 sq km forest houses Nagaland's highest peak, Mount Saramati.

The research is significant as it shows that the big cat can survive at a higher altitude also. The development indicates that even the non-protected forests host a significant amount of biodiversity.

Clouded leopard is considered the smallest of the large wild cats and has been categorized as vulnerable.







# CIVIL LAW

## DO YOU KNOW ?

**Damage:** loss or injury to a person or property.

**Damages:** the money claimed by or ordered to be paid to a person as compensation for loss or injury suffered by them.

Sometimes, the same act or offence can have both a civil (compensatory) and criminal (penal) remedy.

After the basics of law in general and constitutional law in particular, let's now dive into the basics of civil law.

### Question: What is civil law?

**Answer:** Civil law is a set of rules and regulations which helps in resolving disputes which are civil, or non-criminal, in nature. Civil law is binding and must be followed by all the citizens of the country.

### Q: Why do we need a civil law?

**A:** Within any civil society, disagreements between individuals and institutions are inevitable. Civil laws help resolve disputes an impartial dispute resolving mechanism in case of such disputes.

### Q: What is the goal of civil law?

**A:** The key purpose of civil law is to protect its civilians from actions that affect the smooth

functioning of society. This includes relationship among individuals and/or organisations.

**Example: 'A' is the owner of a certain piece of land. After A passes away, a dispute arises between her adult children, 'B' and 'C.' Both B and C claim that they should now receive the ownership of the land. Now, one of them can file a suit against the other to decide who will become the owner of the property. This case would fall under the scope of civil law.**

### Q: What are the things that come under civil law?

**A:** Civil law is an extremely broad area of law and encompasses several legislations. A few of them are well defined and codified and some are based upon precedents. In the contemporary context, civil law includes commercial law, tax law,







**Civil law is an extremely broad area of law and encompasses several legislations. A few of them are well defined and codified and some are based upon precedents.**

consumer law, law of contracts, property law, family law, law of torts, administrative law etc.

**Precedent:** a principle or rule established in a previous legal case that will help a court to decide on subsequent cases with similar issues.

**Tort:** any instance of harmful behaviour e.g., physical attack, interference with one's possessions, honour, reputation and privacy.

**Q: Did the concept of civil law exist in India before independence?**

**A:** Yes! It has existed in India for ages. Manu compiled the justice system of India. His elaborate work entitled 'Manava Dharma Shastra' (more popularly known as 'Manusmriti') is a complete code which contains many legal provisions pertaining to civil law among other laws.

**Q: Where are civil cases conducted?**

**A:** Civil cases or suits are conducted in courts like Munsif Courts, District Courts, Tribunals,

High Courts and the Supreme Court (depending on the magnitude and the stage of each case).

**Q: What is the procedure followed for conducting civil cases in India today?**

**A:** The law regarding the procedure of conducting civil cases in India, is primarily governed by the Code of Civil Procedure, 1908 (CPC), which is a procedural law.

#### **DO YOU REMEMBER?**

**Substantive law** governs the legal relationships and conduct of people.

**Procedural law** describes the procedure to be followed in administering the substantive law.

**Q: What is the major difference between civil and criminal law?**

**A:** In criminal law, the decision or result of a case is to provide punishment to the person who has committed the crime. On the other hand, civil law focuses more on the remedy of providing damages or compensation to the victims rather than giving punishment to the accused.





**S**hravan and Gita were playing scrabble with Grandpa. Shrvan started the game scoring bonus points by using all his letters to make the word DIGITAL.

Just then their neighbour Mr. Gupta peeped in. “Can I have a word with you?” Without waiting for an answer, he walked in and showed his mobile to Grandpa.

“I got this email from income tax department just now. I am so confused. I have not filed any tax return.”

Grandpa asked Shrvan to read the email.

From [taxrefund@incometax.in](mailto:taxrefund@incometax.in)

**Dear Mr. Tax Payer,**

You are eligible for an extra tax refund of ₹5680.

**Urgent!!!** enter your bank account details in the link given below.

**Click below**

**[www.incometax.in/taxrefund](http://www.incometax.in/taxrefund)**

**Refund be credit within 24 hours otherwise offer expires,**  
**your truely**  
**Income tax officer**  
**Department of Income tax.**

Grandpa shook his head. “This is a phishing email.”

Mr. Gupta looked even more confused.

Shrvan asked, “Grandpa, what is phishing?”

Grandpa : “Phishing” is an online fraud where the fraudsters send an email that appears to be from your bank or an authentic service provider. The email generally has a link where the receiver is asked to enter sensitive information like bank account number, user id and password.

The fraudsters then use the account details to withdraw money from your account online.”

“What should I do now?” Mr. Gupta asked.

“Don’t reply or click on the link. Report this email as fraud to your bank’s customer service email id,” Grandpa warned.

“How do you know this is fraud? What if income tax department really wanted to send refund?” Gita asked.

“Good question. I will tell you how.”

You can identify a phishing mail by checking for the following points:

1. Phishing mails always ask you to upload sensitive information like bank details by clicking some link. Banks, financial institutions, and government departments do not send such emails with links.
2. This email is not addressed to Mr. Gupta. It says “Mr. Taxpayer”, whereas emails from banks and financial

## Never store important banking data in mobile, email or purse

- Use only verified, secure and trusted websites for online banking
- Avoid banking through public, open or free networks



institutions address the customer by his/her full name.

3. The email says Urgent! Fraudsters use this as a tactic to pressure people to act quickly without thinking.
4. The email is poorly worded and contains grammatical mistakes.

“Oh my God.” Mr. Gupta was scared. “I think it is better not to use these digital banking channels.”

Grandpa shook his head. “No, don’t worry. I will tell you how to use digital banking channels safely.”

### Reasons why we should use digital banking channels:

1. If all of us go to bank branches, we will have to wait in long queues.
2. During this pandemic, it is safer for us to bank online than go to crowded banks.
3. Digital banking channels like ATM, Internet, mobile

banking, and UPI help us bank at our convenience.

### Tips for using digital banking channels safely:

- You must be careful not to share the security numbers, user ids and passwords with anyone.
- RBI has advised customers not to click on any links, but to enter the address of the bank website directly in the browser.
- Follow the safe banking tips advised by banks to prevent frauds.

Mr. Gupta stood up. “Thanks so much.”

### Mobile Payment wallets and apps

The doorbell rang. Gita ran to the door.

Sharada, the fruit seller, gave a bag of fruits to Gita. She peeped in and greeted grandpa. “You can pay me ₹280 through GPay.”

## Safe Banking tips

Don’t let anyone score against you. Never share your Password, PIN, OTP, CVV, UPI-PIN, etc., with anyone.

- ▶ Register your mobile number and email with your bank to get instant alerts.
- ▶ Never store important banking data in mobile, email or purse.
- ▶ Use only verified, secure and trusted websites for online banking.
- ▶ Avoid banking through public, open or free networks
- ▶ Change your online banking password and PIN regularly.
- ▶ Block your ATM Card, Debit Card, Credit Card, Prepaid Card immediately if it is lost or stolen.

Grandpa punched in a few numbers on his phone and within a minute said, “Done.”

There was a ping on Sharada’s mobile. She checked and nodded. “Got it. Thank you.” She left.

“So fast? What is this GPay?” Mr. Gupta asked.

“It is a payment app by Google that you can download on your mobile. First, you register on this app and link it to your bank account. Then, you can make payments by







entering the mobile number of the recipient.

There are other mobile payment apps like GPay. **BHIM UPI** is an important app. There are also payment wallets like **Paytm**, **Amazon Pay**.”

**Bharat Interface for Money (BHIM)** is an app that lets you make simple, quick payment transactions using **Unified Payments Interface (UPI)**. You can make instant bank-to-bank payments and pay and collect money using just Mobile number or Virtual Payment Address (UPI ID).

BHIM is developed by the National Payment Corporation of India (NPCI), a not-for-profit company for providing retail payment systems in the country under guidance from Reserve Bank of India.

Banks also offer mobile banking facilities through their own apps. For example, ICICI Bank has an app called “Imobile” for your usual banking transactions.”

Mr.Gupta looked doubtful. “Are these apps safe? What if I misplace my mobile?”

Grandpa answered. “Follow these tips.”

#### Tips for safe mobile banking:

- Use fingerprint authentication on your mobile for logging in to payment apps.

- For transaction authentication, choose a four digit, or six-digit PIN number as required by the app.
- Do not reveal this PIN to anyone.

#### Grandpa’s phone rang.

“Shravan, can you answer the phone? It must be your mom.”

Shravan shook his head and handed over the phone to Grandpa. It was an unknown number.

The caller was very polite. “Sir, my name is Sankaran. I am a retired teacher. I sent ₹5000 to your phone number through GPay by mistake. I must send it to the doctor urgently for my wife’s treatment. I am sending you the screenshot of my payment of ₹5000. Can you please return my money? Please send it back through GPay to this number. It is urgent sir. Please.”

“  
**Another type of fraud is when some unknown person calls you and says you have won some prize and you must approve or give an OTP to receive the money.**  
 ”

Grandpa looked at his phone. **The message said:**

**Payment successful ₹5000 sent by Sankaran**

Grandpa showed the message to Mr. Gupta and the children. He quickly checked his bank account details through mobile banking app.

Grandpa’s phone rang again. He answered and put it on speaker mode. The caller spoke, “Sir, Sankaran here. I sent you the payment confirmation. Please send me back the money urgently. Very urgent. My wife is in the hospital.”

Grandpa spoke calmly. “I have checked my bank account details. I haven’t received any money. I don’t know what you are talking about.”

“But I have sent you the payment confirmation.”

“I told you I have not received the money. Why don’t you take it up with your bank? Or should we call the police?” The phone call got cut.

Mr. Gupta let out a big sigh. “Oh my God. He was a fraud!!”

Grandpa nodded. “Yes. Another type of fraud is when some unknown person calls you and says you have won some prize and you must approve or give an OTP to receive the money. You don’t need to give an OTP to receive money.”

Mr. Gupta nodded. “Thank you. I’ll start using internet banking, mobile banking and mobile payment apps with your help.”

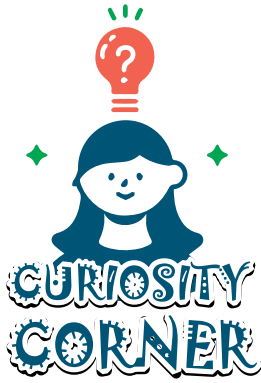
#### RBI

RBI and the banks have issued safe banking tips. Check these for more information:

<https://rbikehtahai.rbi.org.in/safeguards-for-digital-banking.html>

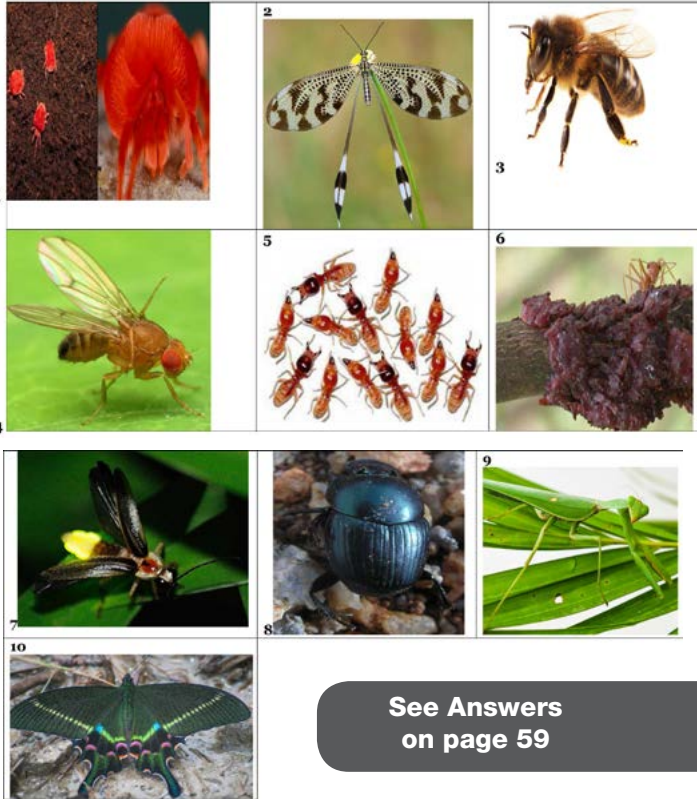
<https://www.icicibank.com/online-safe-banking/Internet-banking-index.page?>





**Insects are essential for a healthy ecosystem. Around 80% of the flowering plants are pollinated by insects. While a few insects are really harmful, 98 % are helpful and useful.**

If all mankind were to disappear, the world would regenerate back to the rich state of equilibrium that existed ten thousand years ago. If insects were to vanish, the environment would collapse into chaos.  
- Edward O. Wilson



**Clues**

- 1 Oil from this is used in traditional Indian medicine to treat paralysis.
- 2 These live in mountainous regions of northern India and are expert hunters of insects and allied harmful invertebrates.
- 3 These are food suppliers and their products have medicinal properties.
- 4 A model organism to study disciplines ranging from fundamental genetics to the development of tissues and organs.
- 5 The Irular and Mudugar tribes use these for the treatment of rheumatic diseases, body pain, better health and anaemia.
6. This releases a sticky product used in Lithographic ink, varnishes and polishes, sealing wax, making ornaments, toys etc.
- 7 This radiates light.
- 8 Sacred in ancient Egypt;are called the Unsung Heroes of our environment.
9. This can be domesticated and is a remarkable predator.
10. This species was among the 3 contenders for national butterfly status.

**See Answers on page 59**

**SUDOKU**

Fill in the puzzle so that every row across, every column down and every 3 by 3 box contains the numbers 1 to 9.

						7	
7			1	5	9		
8	3				1	6	
6	5		4	9			3
		4					
		7	6				
9	1		6				
	2	7	9			4	
4		5	1				

**Help:**

1. Row 3 column 7 can only be 4
2. Row 3 column 5 can only be 7

**See Answers on page 64**





# SARDAR UDHAM SINGH

There are many great people who have contributed in various ways to the country's independence and sovereignty.

We are only familiar with a few well-known freedom fighters who have been honoured for their efforts. There are many other great people who have contributed in various ways to the country's independence and sovereignty.

Sardar Udham Singh was an Indian revolutionary born on 26th December 1899 in Punjab.

On 10th April 1919, British Police arrested leaders of the Indian National Congress under the Rowlatt Act. This, in turn, led to a peaceful protest at Jallianwala Bagh on 13th April 1919. General O'Dwyer along with his troops entered Jallianwala Bagh, blocked the main entrance, and without any warning opened fire on the crowd for about 10 minutes until the ammunition supply was almost

exhausted. Sardar Udham Singh began plotting and planning murder against him since then. Dwyer went to London on 13th March 1940 to attend a meeting of the East India Association and the Central Asian Society. Armed with a revolver, Udham entered the building, waited for the meeting to end, pulled out his revolver and fired two bullets at Governor Dwyer killing him on the spot.

Udham was arrested by the British and formally charged with murder on 1st April 1940. When pressed for clarification, he stated that he had done an excellent job. He had been wanting to do this for a long time, and now he finally had the chance. "He wanted to crush the spirit of my people, so I crushed him," he said. "I'm glad I was able to complete this task."





## प्राकृतिकजीवनम् | Living Naturally

# Water – It's all about how we drink!

**“The true elixir of life is water.”**

- Sir CV Raman

**T**he body can survive for 8 to 21 days without food up to two months if there is access to an adequate water intake but humans can survive only for three days without water.

Water makes up 60-75% of human body weight. It is an invaluable life-sustaining force important for our cells, tissues and organs to maintain their structure equilibrium and to function properly.

The way we drink water impacts our health, fitness, day to day activities. Inadequate water intake can cause dehydration, and excess can be life-threatening as

sodium content of our blood gets diluted and there is an overload on the kidneys. If we don't drink water in the right manner, we are prone to develop several diseases and disorders.

### How much water can we drink?

2-3 litres per day. Varies based on age, physical activity etc.

### How to drink water

Posture: Sitting is best (better distribution). Sipping in small quantities frequently is better than gulping.

### When to drink water

Keep drinking now and then without feeling dry.

### What about the temperature?

Warm water is best for faster circulation and penetration across the body. Never mix hot and cold water to drink immediately because the properties and functionalities change. Avoid drinking cold water straight from the refrigerator.

### What is the best source?

Rain and well water are the purest. Avoid excessive intake of Reverse Osmosis processed water.



### How to heat water

Solar energy is the best. Boiling in stove in earthen ware or materials other than aluminium and non-stick wares is recommended. Boiling water for 10 mins is ideal. It activates the *agni* and enriches the water with energy. Avoid boiling or heating in microwave oven as water gets heated in a closed chamber unevenly and the property of water molecules is altered.



### How to store water

Store water in copper vessels overnight. Copper ions dissolve in water in small amounts killing harmful microbes, fungi and bacteria and maintain body



### Answers

1. Red velvet mite
2. Spoon-winged lacewings
3. Honey bees
4. Fruit fly
5. Termites
6. Lac Insect
7. Fire fly
8. Dung Beetles
9. Praying Mantis
10. Krishna Peacock

**ANSWERS**  
of Page 61

1	4	2	5	9	6	3	7	8
3	7	6	8	1	4	5	9	2
5	8	9	3	7	2	4	1	6
6	5	1	4	8	9	7	2	3
7	3	4	2	5	1	8	6	9
2	9	8	7	6	3	1	5	4
9	1	3	6	4	7	2	8	5
8	2	7	9	3	5	6	4	1
4	6	5	1	2	8	9	3	7

pH. Earthen clay pots are the best as they balance pH and they naturally remove the impurities to an extent. The human body is acidic in nature, while clay is alkaline. Storing in clay pots prevents stomach acidity problems and improves body's metabolism. Such storage also keeps the water cool during summer, without refrigeration.



**Avoid plastic bottles:** Risk of ingesting the chemicals used to make the bottles is very high as toxins from the plastic can leach into the water over time. Also, exposure to different temperatures during transportation of the water bottles has an impact on the water and plastic.





# From COOLIE to IAS Officer - SUCCESS SAGA

He started preparing for competitive examinations by learning lessons from YouTube videos during his free time in railway platforms.

"A dream does not become reality through magic; it takes sweat, determination, and hard work." - Colin Powell

A smart phone, a memory card, a pair of earphones and the free Wi-Fi connectivity provided by the Indian railways – are these materials enough to crack the toughest examination of the nation?

Yes, if there is strong will power and dedicated hard work, proves Sreenath K, a talented, steadfast and sincere young man from Munnar in Kerala. He has evolved as a role model for those who wish to leave their footprints in history.

As a porter in Ernakulam Junction railway station, he worked for nearly 5 years to earn his bread and butter. Even a full day's toil could not earn him more than Rs 500. He was unable to meet his family expenses.

He decided to strive hard to bring about a total change in his life. He started preparing for competitive examinations by learning lessons from YouTube videos during his

free time in railway platforms. His first success was in the examination conducted by Kerala Public service Commission for the post of Village Assistant.



His dreams did not end there. He continued preparation to crack the Civil Service Examination conducted by UPSC. His three attempts ended in failure. Many discouraged him. "This is a matter of patience and practice. I'll keep on writing examinations until they become easy for me", replied Sreenath. His fourth attempt was fruitful. "No one can stop my dreams" were his first words after cracking the examination.

Yes, no one can stop the dreams of a determined mind. Enrich your general knowledge and sharpen your skills to achieve success in future life.



# TRIPURA



*Ujjayanta Palace*



*Neermahal Water Palace, Melagarh*



*Bhubaneswari Temple*



*Akhaura Integrated Check Post*

**T**ripura is a hilly state in northeast India, bordered on 3 sides by Bangladesh, and home to a diverse mix of tribal cultures and religious groups. It is the third smallest state in India.

The word 'Tripura' is a compound of 'tui' (water) + 'pra' (near) which means 'near water'. The vast water resources of eastern Bengal coupled with the generic identity of the state's original inhabitants as 'Tipra' or 'Twipra' justify the name.

Tripura has a long history. The Twipra Kingdom at its peak included the whole eastern region of Bengal from the Brahmaputra River in the north and west, the Bay of Bengal in the south and Burma to the east during the 14th and 15th centuries CE.

The last ruler of the princely state was **Kirit Bikram Kishore Manikya Bahadur Debbarma** who reigned from 1947 to 1949 after whom the kingdom was merged with India on 9th September 1949 and the administration was taken over on 15th October 1949.

Tripura became a Union Territory on 1st July 1963 and later a full-fledged state on 21st January 1972.

There are ten major rivers; all are rain-fed and ephemeral in nature. The hilly regions have four major valleys.

About half of land area is under forest cover. One of the most notable types of trees is Sal, a valuable tropical hardwood. There are also large tracts of bamboo.

Animal life includes tigers, leopards, elephants, jackals, wild dogs, wild boars, serows (goat like mammals) and various species of wild cattle including gayals and other types of gaurs. Several species of primates, including langurs and gibbons also inhabit Tripura's woodlands. Many types of migratory birds such as teals, ibises and storks visit the lowlands.

Tripura's flora and fauna are protected in a number of wildlife sanctuaries, some of which are:

- **Sepahijala Wildlife Sanctuary** & Clouded Leopard National Park
- **Kalapania Nature Park**, Sabroom, South Tripura
- **Khumulwng Eco Park**, Kumulwng, West Tripura
- **Rowa Wildlife Sanctuary**, North Tripura
- **Gumti Wildlife Sanctuary**, Between Gomati & Dhalai District
- **Baramura Eco Park**

More than half of the population constitutes tribal community. The prominent tribes include the Reang, the Chakma, the Halam, the Garo, the Lusai and the Marma.

Look Sharp,  
Be Sharp,  
Go Army!



15th January

**ARMY DAY**



Let us celebrate INDIAN ARMY DAY by saluting all the Army men for their bravery, dedication and patriotism.



Indian Army Day  
always reminds us of  
all our heroes who stand  
strong to keep us safe.

**Happy Indian Army Day!**



Let us celebrate National Army Day by promising ourselves to dedicate our lives to our nation.



ARISE,  
AWAKE, AND  
STOP NOT TILL  
THE GOAL IS REACHED

-Swami Vivekanand ji

NATIONAL  
YOUTH DAY

JANUARY 12

Take risks in your life,  
If you win, you can lead!  
If you lose, you can guide.

Wish you  
Happy National  
Youth Day

