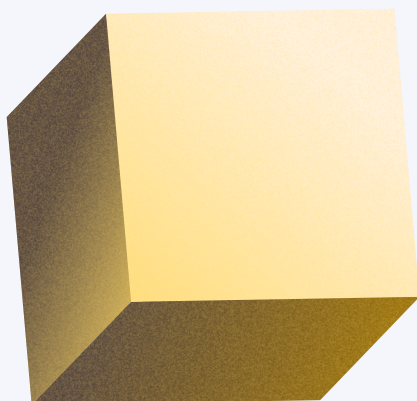


THE HINDU ANALYSIS

2nd April 2024
by saurabh pandey



Topics

- **Ozone in Jupiter moon**
- **Why protest In Ladakh?**
- **What is Havana Syndrome?**
- **PMLA**
- **AI Application in election**
- **Mains qs**





Q "AI is making democratic procedures as disinformation directed" Suggest steps to limit the impact of AI in election

प्रश्न "एआई लोकतांत्रिक प्रक्रियाओं को दुष्प्रचार के अनुरूप बना रहा है" चुनाव में एआई के प्रभाव को सीमित करने के लिए कदम सुझाएं



The hindu analysis by saurabh pandey sir

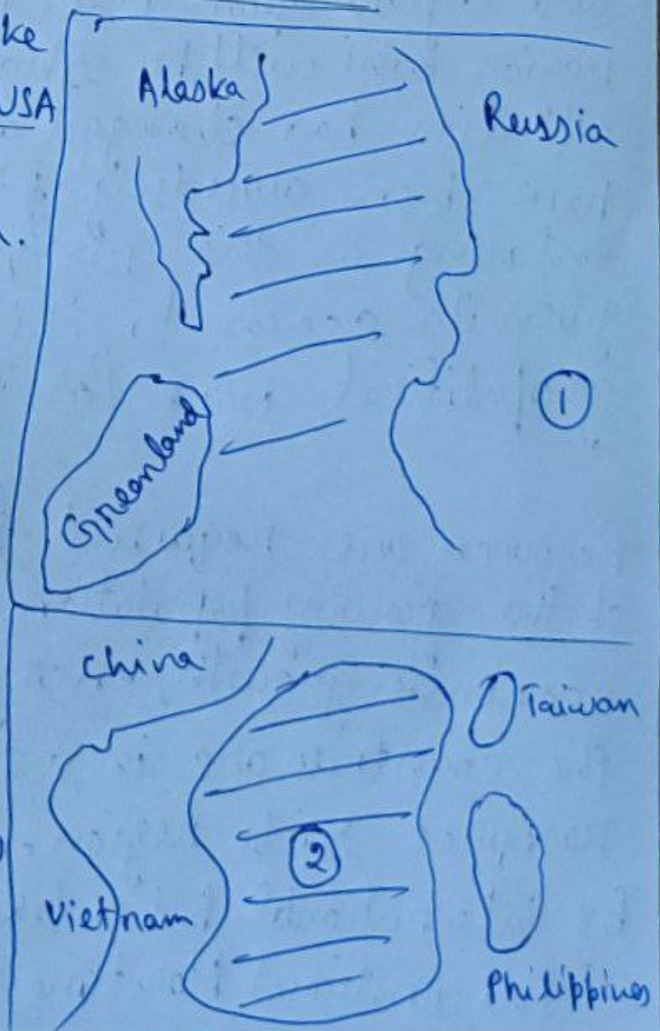
Runal Roy

- Q Resource accessibility can be a reason for maritime disputes between countries. Discuss.
- Overlapping claims over resources such as fisheries, oil, natural gas, minerals, etc can cause conflicts over maritime boundaries, exclusive economic zones (EEZs) and exploration rights of these resources.

The resource rich regions are :-

- ① The Arctic Region - is rich in resources like oil, natural gas, iron ore, copper, nickel, Zinc, phosphorus, diamonds, etc. Many countries are exploring this region to access these resources for energy security and industrial needs.

Disputes between countries like Canada-Denmark, Russia-USA, Norway-Russia, over the resources of these region.



- ② South China Sea Region
- China has asserted an imaginary 9-Dash line which violates the principle of EEZ. China has also built artificial islands with heavy military developments, which worries the neighbouring countries.

Disputes between China and Taiwan, Paracel islands, Scarborough shoal, Spratly islands for breaking the law of the Sea-convention is a major problem in the region.

③ Kochchatheevu island -

The prolonged dispute over fishing rights in the Palk Bay has been a source of tension between

India and Sri Lanka for many year.

This island was given to Sri Lanka by India, and agreed upon that the resources of the region ~~will~~ will be shared by both. But the situation has changed and Sri Lankan navy have been arresting of Indian fishermen for entering in the region. Sri Lanka has also given its access to china, which is a major geopolitical issue for India.



Resources are required ~~for~~ to meet the demands of the growing population, for technological development, economic growth, energy security, etc. For this the countries are in a race to capture such resource rich region, which need to be regulated by international bodies like the Arctic Council, International Maritime Organization, etc.

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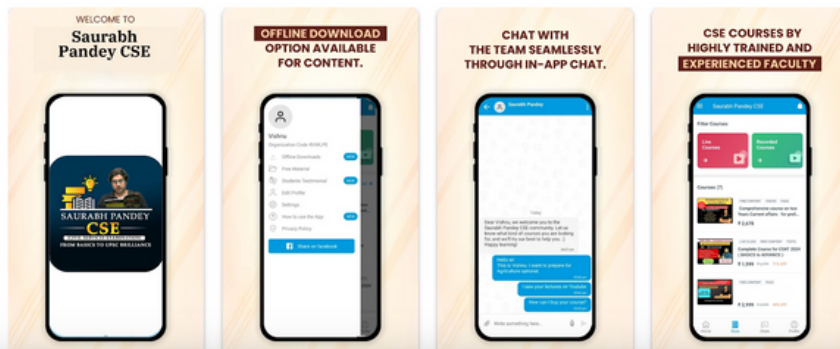
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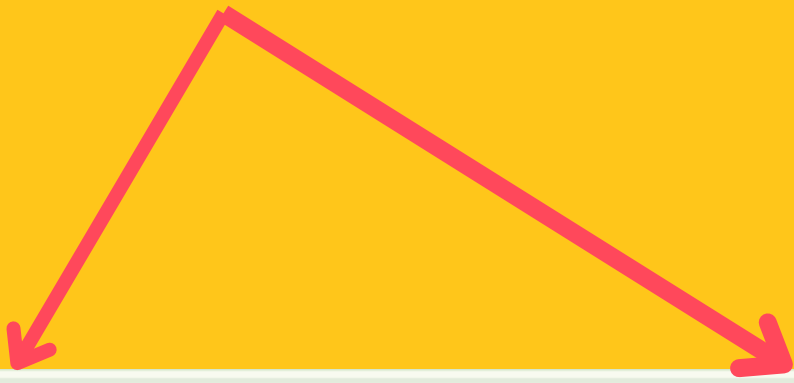


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Team led by PRL Ahmedabad finds ozone on Jupiter's moon

Scientists are currently studying various celestial bodies in the solar system that show signs of ozone, suggesting the existence of stable atmospheric conditions and, by extension, the possibility of them being able to host life

Tejasri Gururaj

An international team of scientists, including from India, has discovered strong evidence indicating the presence of ozone on Jupiter's moon, Callisto, shedding light on the complex chemical processes taking place on icy celestial bodies in the Solar System.

The study was published in the March 2024 issue of the journal *Icarus*. It outlines the researchers' investigation into the chemical evolution of 'SO₂ astrochemical ice', which is ice primarily composed of sulphur dioxide (SO₂) in the presence of ultraviolet irradiation.

This shed light on the chemical processes and composition of the surface of Callisto. By analysing the data of the UV absorption spectra of the irradiated ice samples, the team was able to identify a distinct signature indicating the formation of ozone.

They corroborated their findings by comparing them with data from the Hubble Space Telescope to understand Callisto's environment and the potential habitability of icy moons in the Solar System.

The importance of ozone

The earth has life not just because it found a way to originate here; it also has the resources to thrive, evolve, and diversify. These resources include sunlight containing the "right" frequencies of radiation, water, a stable atmosphere providing a stable supply of the requisite gases at the right temperature, and various compounds required for the life-forms' biochemical processes.

This said, not all emissions from the sun are good for organisms on earth. Ultraviolet radiation in particular is harmful to many species (but also useful to some others). Two of its components, called ultraviolet-B and ultraviolet-C, of wavelengths 290-320 nanometres and 100-280 nanometres respectively, can damage DNA, trigger mutations, and increase the risk of skin cancer and cataracts in humans.

Ultraviolet light has also been known to inhibit plant growth and have detrimental effects on various organisms. This is why the ozone layer is a crucial part of the earth's atmosphere: it completely absorbs ultraviolet-B and ultraviolet-C radiation.

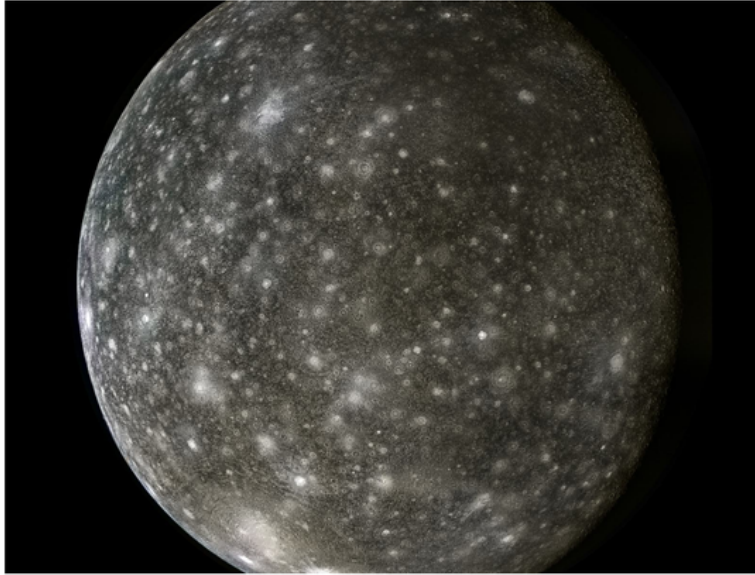
The ozone molecule is composed of three oxygen atoms bonded together. The ozone layer, found in the lower part of the planet's stratosphere, around 15-35 km above ground, serves as a shield. Without the ozone layer, ultraviolet radiation levels would be much higher on the planet's surface, rendering it uninhabitable for many species and disrupting entire ecosystems.

Scientists are currently studying various celestial bodies in the Solar System that show signs of ozone, suggesting the existence of stable atmospheric conditions and, by extension, the possibility of their being able to host life.

Callisto and its unique environment

After Saturn, Jupiter has the most moons in the Solar System. Callisto is one of Jupiter's largest moons and the third-largest moon in the Solar System after Ganymede and Titan.

Callisto, despite its impressive size, is



The surface of Callisto imaged in approximately true colour by the Voyager 2 spacecraft in July 1979. NASA

distinguished by its composition. Despite being as big as the planet Mercury, it has less than half as much mass. Callisto is primarily composed of water ice, rocky materials, sulphur dioxide, and some organic compounds. These substances make the moon a potential candidate for supporting life in the solar system beyond the earth.

Callisto's surface is heavily cratered, indicating a long history of being struck by asteroids and comets. (It may have the oldest surface in the Solar System, in fact.) It also lacks the extensive seismic activity seen on some of Jupiter's other moons, such as Io and Europa.

The presence of relatively few geological features suggests Callisto's surface is geologically inactive. In other words, its surface has likely been relatively stable for a long time. This stability could be vital to preserve any subsurface ocean or potential habitats beneath the icy crust.

The detection of sulphur dioxide on Callisto's surface has encouraged this team of scientists to conduct spectroscopic observations to gain a better understanding of the moon's surface composition and formation.

Recreating conditions on the earth
Scientists led by R. Ramachandran, of the Atomic, Molecular, and Optical Physics Division, Physical Research Laboratory, Ahmedabad, set out to investigate the chemical evolution of sulphur dioxide ice under irradiation, leading to the formation of ozone.

Scientists have previously demonstrated this process in laboratory experiments. The current team's aim was to recreate the conditions required for this process on the surface of Callisto when sunlight hits its surface. To do this, the researchers used vacuum ultraviolet



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photons, which mimic the solar radiation that reaches the moon's surface.

The experiments were conducted at the National Synchrotron Radiation Research Centre (NSRRC) in Taiwan, which provided access to high-energy radiation sources required to recreate the radiation coming from the Sun.

To model the surface of Callisto, the researchers placed a substrate of lithium fluoride in a chamber with very low pressure. This environment recreated conditions similar to those found in outer space. The sulphur dioxide ice samples were deposited onto the substrate, setting the stage for the final step: observing the absorption spectrum.

The absorption spectrum is the unique fingerprint of a substance. It shows the wavelengths of light it absorbs, providing insights into its composition and properties.

The team carefully controlled the temperature of the sulphur dioxide ice samples throughout the experiment.

The samples were initially kept at a low temperature of around 9 K (-264.15 degrees C), in line with the conditions on Callisto's surface. Then they slowly warmed it up to 120 K to resemble different environmental scenarios.

In this process, they irradiated the ice with vacuum-ultraviolet photons (of wavelength 137.7 nanometres) and

recorded its ultraviolet absorption spectrum during and after the irradiation using a photomultiplier tube detector. This device measures low levels of electromagnetic radiation by converting photons into electrical signals.

Ozone and potential habitability

The ultraviolet absorption spectrum revealed the formation of ozone after the sulphur dioxide ice samples were irradiated. This was evidenced by a distinct signature in the absorption spectrum.

The researchers also compared their experimental data with data collected by the Hubble Space Telescope, which had also suggested the presence of sulphur dioxide and ozone on the surface of Callisto in 1997.

The discovery of ozone on Callisto suggests the presence of oxygen, which in turn is a fundamental ingredient required for the formation of complex molecules required for life (as we know it), such as amino acids, raising questions about the moon's habitability. This extends to other icy moons in our solar system, potentially informing our understanding of habitable conditions beyond Earth.

In addition to the ozone, the researchers observed an unidentified band in the absorption spectrum - similar to that observed on Ganymede in 1996 - hinting at a common molecular source in their surface compositions or chemical processes.

This finding could provide valuable insights into geological and atmospheric processes on these moons. In particular, it could help us to understand the precise mechanisms that led to the formation of Jupiter and its moons, which remain topics of active research.

(Tejasri Gururaj is a freelance science writer and journalist.)



The hindu analysis by saurabh pandey sir



Ozone in Jupiter moon

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- **Despite being as big as the planet Mercury, it has less than half as much mass.**
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Ladakh's protest; a hunger for justice

What are the key demands of the LAB-KDA representatives in negotiations with the Centre? What are the main pressures on local resources in Ladakh, particularly water and land? How does tourism growth contribute to resource strain in Ladakh?

EXPLAINER

Kavita Upadhyay

The story so far:

In March 6, in Leh, a town situated at about 3,500 metres in the cold, arid Union Territory (UT) of Ladakh, Sonam Wangchuk, Ladakh's famous educationist and environmentalist, began a 21-day hunger strike that he called a "climate fast". The strike is in support of thousands of Ladakh residents who have been demanding Statehood for Ladakh and its inclusion in the Sixth Schedule of the Indian Constitution, so they can make decisions regarding the use and management of resources such as land and water, which they currently can't. Mr. Wangchuk discontinued his hunger strike on March 26, as he urged Prime Minister Narendra Modi and Union Home Minister Amit Shah to "prove that they are statesmen". The strike is currently being continued by women in Leh. If their demands stay unmet, the youth, monks, and the elderly have said they will join the hunger strike as well, in phases.

How has the formation of UTs affected the decision-making powers of Ladakh?

In August 2019, the State of Jammu and Kashmir was split into two UTs: Jammu and Kashmir and Ladakh. It ended people's exclusive rights to land and jobs.

Under the Jammu and Kashmir Reorganisation Act, 2019, Ladakh became a UT without a legislature.

"Our UT is administered by a Lieutenant Governor, who is not a Ladakh resident, and yet is appointed to take decisions for our future," said Jigmet Paljor, coordinator of Leh Apex Body (LAB), a collective of political, social, religious, and student organisations of the Buddhist-majority Leh district.

Several bureaucrats in key positions, influencing decisions for the region's future, were also not residents of Ladakh, Sajjad Kargili, a core committee member of the Kargil Democratic Alliance (KDA) of the Muslim-majority Kargil district, said. Similar to LAB, KDA is a collective of Kargil's political, social, religious, and student organisations.

Mr. Kargili further said the existing Ladakh Autonomous Hill Development Councils (LAHDCs) in Leh and Kargil were rendered powerless after the national government declared Ladakh a UT.

The draft Ladakh Industrial Land Allotment Policy, 2023 is a case in point.

While the LAHDCs have the powers to make decisions on land use and its management, the draft policy, which has been designed to attract investments in Ladakh, completely excludes them from having any powers related to land allotment and lease-related decision-making.

Mr. Paljor said villagers along the border region in Ladakh were losing grazing land to China, as well as to industries planning on establishing renewable energy projects in the region, and yet the affected residents lacked the authority to intervene in matters concerning their own land.

The LAB and the KDA have contended that the Sixth Schedule could help tackle these issues because it enables the establishment of regional and district councils with the authority to make laws regarding land use for grazing, agriculture, residential purposes, and other purposes that cater to the residents' interests.

Considering more than 97% of Ladakh's population of over 2.74 lakh (2011 Census) is tribal, the National Commission for Scheduled Tribes



Call to action: A child holds a placard during Sonam Wangchuk's hunger strike protest. ANI

recommended in 2019 that Ladakh be brought under the Sixth Schedule.

The Bharatiya Janata Party (BJP) too in its manifestos, ahead of the 2019 Lok Sabha and 2020 LAHDC elections, had promised to bring Ladakh under the Sixth Schedule. It remains unmet.

In an effort to persuade the BJP at the Union government to bring Ladakh under the Sixth Schedule, LAB-KDA representatives have engaged in discussions with various Ministers on at least 10 occasions between 2020 and March 4 this year. A few of these negotiations, including the most recent one on March 4, have happened with Mr. Shah.

Mr. Kargili, who has been participating in the negotiations with the Centre, said LAB-KDA's demands since 2021 have included safeguards under the Sixth Schedule, either Statehood for Ladakh or declaring it a UT with a legislature, a separate Public Service Commission for Ladakh, and separate parliamentary seats for Kargil and Leh. The Centre has not yet accepted them.

"The current hunger strike is a result of numerous unsuccessful negotiations with the Centre," Mr. Kargili said.

What are the pressures on local resources?

According to recent data from the Ministry of Tourism, Ladakh is witnessing a high influx of domestic tourists. In 2022, more than five lakh domestic tourists visited the region. In Leh alone, which is Ladakh's largest town, while just over half a lakh domestic and foreign tourists visited in 2007, by 2018 the number had risen to 3.2 lakh. A research article published in 2019 stated that the built area in the town had increased from 36 hectares in 1969 to 196 hectares in 2017.

Rapid urbanisation and increasing tourist footfall are exerting significant pressure on resources in Ladakh, particularly water.

A report on water-related issues in Leh

published in 2019 by Bremen Overseas Research and Development Association, South Asia (BORDA-SA), and Ladakh Ecological Development Group calculated that in Leh, a tourist used about 100 litres of water a day in summers and 60 litres in winters whereas a local used about 75 litres a day in summers and 50 litres in winters. The poor, especially migrant workers, had access to only 25-35 litres per person per day. To meet these requirements, the dependence on underground water, which is often contaminated, had increased, the report found.

Stanzin Tsepel, former regional director of BORDA-SA and a co-author of the report, said the issue was with water management rather than availability.

The pressure on resources is especially high during peak tourist season, between May and July each year, when about 70% of tourists visit the UT, Deleks Namgyal, president, All Ladakh Tour Operators Association, said.

However, Mr. Namgyal was worried about the possible narrative against tourism the ongoing hunger strike could feed. "We want tourists to visit Ladakh because it is important for our region's economy, but we want sustainable tourism and we are working towards it," he said.

How does climate change threaten the region?

In the last two decades, Ladakh has been affected by several floods, landslides, and extreme rainfall events. For instance, in August 2010, several parts of Ladakh, especially Leh, were hit by flash floods. Nearly 255 people died in the deluge. In August 2014, a glacial lake outburst flood (GLOF), caused when a glacial lake is breached, damaged houses and bridges in Gya village.

More recently, in August 2021, a GLOF near Rumbak village also damaged roads and a bridge.

A study published in 2020 estimated

that Ladakh has 192 glacial lakes. Several research articles also state that due to increasing temperature caused by global warming, the number and sizes of glacial lakes in the Himalaya are increasing, and glaciers are shrinking.

This trend has increased the threat of possible GLOFs in Ladakh, especially from proglacial lakes that are formed at the edge of glaciers, said Irfan Rashid, a glaciologist from the University of Kashmir, who conducts research in the UT, which lies in the Trans-Himalayan region.

"The increased temperatures are also resulting in permafrost degradation and are causing mudflows in Ladakh," Dr. Rashid added.

According to Sonam Lotus, a scientist at the India Meteorological Department's Meteorological Centre at Leh, the trend over the past few years shows slight increase in the region's minimum temperature.

While the lowest minimum temperature recorded in 2011 was minus 23.6 degrees C, in 2023, 2022, and 2021, it was minus 16.8 degrees C, minus 18 degrees C, and minus 16 degrees C, respectively, Mr. Lotus said.

Despite the challenges posed by climate change, mining and renewable energy companies are eyeing Ladakh, and tourism-related activities are on a rise.

With significant tourist influx, pollutants from vehicular traffic (like black carbon) will settle on snow and ice and expedite melting.

Mohammad Farooq Azam of the Indian Institute of Technology, Indore, who has undertaken glacio-hydrological studies in Ladakh, said mining activities might increase slope instability, making them landslide-prone. Dust from mining that will settle on glaciers could also accelerate their melting.

Kavita Upadhyay is an independent journalist and researcher who writes on issues of environmental governance in the Indian Himalayan Region

THE GIST

▼ Sonam Wangchuk's hunger strike in Leh calls for Ladakh's Statehood and inclusion in the Sixth Schedule of the Indian Constitution to empower locals in decision-making, following the reorganisation of Jammu and Kashmir into separate Union Territories in 2019.

▼ Rapid urbanisation and tourism growth are straining Ladakh's resources, particularly water, leading to concerns over sustainability and equitable access. Dependence on underground water, exacerbated by tourism, is highlighted as a key issue.

▼ Ladakh faces increasing risks from climate change, including glacial lake outburst floods (GLOFs), permafrost degradation, and rising temperatures.

▼ Despite these challenges, mining, renewable energy projects, and tourism continue to grow, exacerbating environmental concerns.





Why protest In Ladakh?

- **Sonam Wangchuk's hunger strike in Leh calls for Ladakh's Statehood and inclusion in the Sixth Schedule of the Indian Constitution to empower locals in decision-making, following the reorganisation of Jammu and Kashmir into separate Union Territories in 2019.**
- **In August 2019, the State of Jammu and Kashmir was split into two UTs: Jammu and Kashmir and Ladakh.**
- **It ended people's exclusive rights to land and jobs. Under the Jammu and Kashmir Reorganisation Act, 2019, Ladakh became a UT without a legislature.**
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People viewpoints

- “Our UT is administered by a Lieutenant Governor, who is not a Ladakh resident, and yet is appointed to take decisions for our future,”
- Several bureaucrats in key positions, influencing decisions for the region’s future, were also not residents of Ladakh, Sajjad Kargili,

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- **Despite the challenges posed by climate change, mining and renewable energy companies are eyeing Ladakh, and tourism-related activities are on a rise. With significant tourist influx, pollutants from vehicular traffic (like black carbon) will settle on snow and ice and expedite melting.**



The U.S. embassy in Havana in Cuba where the syndrome was first reported in 2016. AP

'Havana Syndrome' linked to Russian intelligence: report

Agence France-Presse

WASHINGTON

The mysterious so-called Havana Syndrome symptoms experienced by U.S. diplomats in recent years have been linked to a Russian intelligence unit, according to a joint media investigation released on Monday.

Havana Syndrome was first reported in 2016 when U.S. diplomats in Cuba's capital reported falling ill and hearing piercing sounds at night, sparking speculation of an attack by a foreign entity using an unspecified sonar weapon. Other symptoms including bloody noses, headaches and vision problems were later reported by embassy staff in China and Europe.

A joint report by *The Insider*, *Der Spiegel* and CBS's *60 Minutes* suggests that the the diplomats may have been targeted by Russian sonic weaponry. The year-long investigation "uncovered evidence suggesting that unexplained anomalous health incidents, also known as Havana Syndrome, may have their origin in the use of directed energy weapons wielded by members of (the Russian GRU) Unit 29155," the report said.

Russia's 29155 unit is responsible for foreign operations and has been blamed for several international incidents, including the attempted poisoning of defector Sergei Skripal in Britain in 2018.

Moscow dismissed the allegations as "groundless" on Monday.

"This topic has been talked up in the press for many years already... But nobody has ever published any convincing evidence, so all this is nothing more than a groundless and unfounded accusation", Kremlin spokesperson Dmitry Peskov told a news conference.





What is Havana Syndrome?

What is Havana Syndrome?

- The mysterious illness is also sometimes referred to as "Anomalous Health Incidents" (AHI) by U.S. officials.
- Symptoms include extreme headaches, dizziness, nausea and ear pain.
- Two major National Institutes of Health studies published last month found no evidence of brain injury among patients believed to have Havana Syndrome.
-



- **David Relman, a Stanford University scientist who's led previous research into the condition, took issue with the findings in an accompanying editorial, noting they contradict some earlier studies.**

Where has Havana Syndrome been reported?

- **The ailment was dubbed "Havana syndrome" after reports of American officials falling ill were first documented at the U.S. Embassy in Cuba in 2016.**

•



What causes it?

- There are a few theories.
- A 2020 National Academies of Sciences, Engineering, and Medicine report proposed that the neurological symptoms could be the result of a radio frequency energy of radiation that includes microwaves.
- Some lawmakers have also suggested the cases are a result of directed energy attacks.



The PMLA — a law that has lost its way

The Prevention of Money Laundering Act (PMLA), 2002 was enacted with a distinct objective. The humongous volume of black money generated through international drug trafficking posed a grave threat to the economy of many countries. There was widespread realisation that the black money generated through the flourishing drug trade and integrated into the legitimate economy was likely to destabilise the world economy and endanger the integrity and sovereignty of nations.

The background to the law is important

The United Nations took serious note of this, and in 1988, held the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. All countries were urged to take urgent steps to prevent the laundering of the proceeds of drug crimes and other connected activities. Subsequent to this, seven major industrial nations held a summit in Paris (July 1989) and established the Financial Action Task Force (FATF) to examine the problem of money laundering and recommend measures to tackle this menace. Thereafter, in 1990, the United Nations General Assembly adopted a resolution, namely, the Political Declaration and Global Programme of Action which called upon all member-countries to enact suitable pieces of legislation to effectively prevent the laundering of drug money.

In pursuance of this resolution of the UN General Assembly, the Government of India used the recommendations of the FATF to formulate a legislation to prevent drug money laundering. As drug trafficking is a trans-border operation, the UN held a special session on June 10, 1998 on the theme 'Countering World Drug Problem Together' and made another declaration on the urgent need to combat money laundering. Accordingly, the Indian Parliament enacted the Prevention of Money Laundering Act in 2002. But it was brought into force in 2005.

This narration of the history of this law is necessary in order to emphasise the original objective and the circumstances which lead to the enactment. As is clear from the history, the main focus of the law is on combating the laundering of drug money. Accordingly, the Act of 2002 contained a few offences listed in the Indian Penal Code (IPC) and the Narcotic Drugs and Psychotropic Substances Act, 1985. The UN resolutions, and the FATF recommendations are all focused on the prevention of money from the laundering of drugs. However, the PMLA of India acquired a different character through amendments from time to time.

The law on money laundering revolves around the "crime proceeds" which are laundered. Not



P.D.T. Achary

is former Secretary General, Lok Sabha

only the persons involved directly in the crime and the generation of the crime proceeds but also persons who have nothing to do with the crime but who have some involvement at a later stage in the laundering process are also guilty under this law.

But the most serious aspect of the PMLA is that it includes a large number of offences in the schedule which have nothing to do with the original purpose of this law – namely, combating the laundering of drug money. The UN resolution on the basis of which the law on laundering was enacted in India spoke only about the offence of the laundering of drug money. This was considered the most serious economic crime which had the potential to destabilise the world economy and endanger the sovereignty of nations, as highlighted above. The preamble to the PMLA endorses it. So, there was global consensus on the need to have a tough law to deal effectively with this crime. Thus, the *raison d'être* of the PMLA is the crime of the laundering of a huge volume of black money generated from the international drug trade and the spectre of destabilisation of the world economy.

The PMLA's enactment

Further, the PMLA was enacted by India's Parliament under Article 253 which empowers it to make laws for implementing the international conventions. This Article indicates that a law Parliament makes to implement any decision of an international body will be confined to the subject matter of that decision. Item 13 in the Union list of the Seventh Schedule of the Constitution is specific on this point. Thus, the law on money laundering enacted under Article 253 and Item 13 of the Union list in the context of the UN resolution referred to above can only be on drug money. Various amendments made in this Act at different times bloated the schedule which now contains such offences which are either ordinary offences listed in the IPC or for which there are special laws in force. Since money laundering as an offence is linked to one of the scheduled offences, the offences contained in the schedule become the starting point of the whole process of operationalisation of the PMLA.

A close look at the schedule will convince a man of ordinary prudence that this law has deviated from its original scheme. The provisions contained in it are draconian which were meant to deal with the dangerous men involved in drug trafficking and the money chain. These provisions are now being used in other scheduled offences too without mitigating their rigour. Offences which by their very nature do not generate crime proceeds of a scale which can destabilise the economy and endanger the

sovereignty of the nation are being tried under this law. One such example is the Prevention of Corruption Act, 1988 which is aimed at curbing corruption among public servants. This Act was added to the schedule of offences in 2009. The PMLA now applies with all its rigour to public servants. Thus, a public servant charged with corruption and a hard-core drug trafficker are treated alike. A very disturbing thing about the PMLA is that an accused under this law is presumed to be guilty until proved innocent.

A fundamental principle of Anglo-Saxon jurisprudence is that a person is presumed innocent until proven guilty. PMLA turns this principle upside down. An accused will be denied bail by the entire hierarchy of courts because the bail provision contained in section 45 of the PMLA says that a judge can give bail only when he is satisfied that the accused is innocent. Which judge will take such a risk? So the person will rot in jail for years together without trial.

The bail provision

The bail provision of the PMLA Act (Section 45) is invested with a lot of political significance in present day India. It was held unconstitutional by a two-judge Bench of the Supreme Court of India in *Nikesh Tarachand Shah vs Union of India* (2018) as violating Article 14 and Article 21. However, Parliament, with great alacrity, restored this provision with certain amendments which was upheld by a three-judge Bench headed by Justice A.M. Khanwilkar in *Vijay Madanlal Choudhary vs Union of India* (2022). The top court held that this provision is reasonable and has direct nexus with the purposes and objects of the PMLA Act. Herein lies the problem.

The object of the Act is to curb the laundering of black money and to save the economy from being destabilised. But what about less serious offences which have found a place in the schedule? The learned judges nearly said that inclusion of a particular offence in the schedule comes within the domain of the legislative policy.

The present judicial approach to the issue of bail in PMLA cases appears to be very technical. The judicial perspective on bail was laid out by Justice V.R. Krishna Iyer back in 1978 under the following words in *Gudikanti Narasimhulu And Ors vs Public Prosecutor, High Court Of Andhra*: "Personal liberty, deprived when bail is refused, is too precious a value of our constitutional system recognised under Article 21 that the curial power to negate it is a great trust exercisable, not casually but judicially, with lively concern for the cost to the individual and the community". From Justice V.R. Krishna Iyer to Justice A.M. Khanwilkar, the apex court has travelled a long distance.





PMLA

- **1988, held the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances.**
- **All countries were urged to take urgent steps to prevent the laundering of the proceeds of drug crimes and other connected activities.**
- **Subsequent to this, seven major industrial nations held a summit in Paris (July 1989) and established the Financial Action Task Force (FATF) to examine the problem of money laundering and recommend measures to tackle this menace.**
- **Thereafter, in 1990, the United Nations General Assembly adopted a resolution, namely, the Political Declaration and Global Programme of Action which called upon all member-countries to enact suitable pieces of legislation to effectively prevent the laundering of drug money.**



- In pursuance of this resolution of the UN General Assembly, the Government of India used the recommendations of the FATF to formulate a legislation to prevent drug money laundering.
- As drug trafficking is a trans-border operation, the UN held a special session on June 10, 1998 on the theme ‘Countering World Drug Problem Together’ and made another declaration on the urgent need to combat money laundering.
- Accordingly, the Indian Parliament enacted the Prevention of Money Laundering Act in 2002. But it was brought into force in 2005.



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AI in elections, the good, the bad and the ugly

In an effort to broaden Prime Minister Narendra Modi's reach to a variety of linguistic groups, the Bharatiya Janata Party (BJP) has used Artificial Intelligence (AI) to translate his speeches into eight different languages ahead of the Lok Sabha elections, which may potentially be considered India's "first AI election". Yes, the widespread application of AI, with its seemingly limitless possibilities, is likely to bring about a paradigm shift in the general election in 2024.

Social media and campaigns

In practically every election over the past three decades, India's electoral strategy has changed due to the process of an integration with and a capitalisation on emerging technologies. Its spread can be traced to the extensive usage of phonecalls in the 1990s, the Uttar Pradesh Assembly election in 2007 that saw the first "mass mobile phone" elections, the use of holograms in 2014, and, now, the current AI era.

For instance, the significance of social media platforms as essential political campaign instruments will be particularly remembered in relation to the 2014 Indian elections. Many analysts even referred to it as India's first "social media elections" or the "Facebook elections," given the estimated ₹500 crore in digital spending. The BJP, undoubtedly, benefited from being the first to use these technological tools widely to connect with India's sizeable youth population.

A paper in the *Asian Journal of Political Science*, in 2015, titled "India 2014: Facebook 'Like' as a Predictor of Election Outcomes" showed a high positive correlation between the number of 'likes' a party or its leader secured on their official Facebook fan page and their popular vote share. By the time he took office, Mr. Modi was the sixth-most-followed global leader on X (Twitter) and had amassed over 16 million "likes" on Facebook, second only to former U.S. President Barack Obama among politicians worldwide.



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The widespread application of Artificial Intelligence is likely to cause a paradigm shift in almost every aspect of an election

The 2019 general election was widely dubbed the "first WhatsApp election" in India. Indeed, in the previous 12 months and earlier, elections in Nigeria, Brazil, and a few Indian States have shown how WhatsApp can be used to spread messages that are designed to mislead voters for political purposes very quickly. In his book, *How to Win an Indian Election* (2019), former election campaign consultant Shivam Shankar Singh explained that WhatsApp is "an effective political platform because it allows for targeted delivery of information to voters and also because it allows an excellent tool to organize and mobilize party workers".

Global elections, AI, the dangers

The global elections of 2024, in contrast, are "AI elections". In January, New Hampshire voters answered a phone call from what sounded like U.S. President Joe Biden. Indeed, it was a robocall made by AI aimed at dissuading Democratic voters not to turn up to polling stations on election day. Two days before parliamentary elections in Slovakia, in September 2023, a recording of a conversation between a journalist and the leader of the pro-North Atlantic Treaty Organization Progressive Slovakia Party was shared on Facebook, purportedly discussing methods of election manipulation. They both immediately called out the audio as fake, and fact checking turned up proof of AI manipulation. But, in a close race, Progressive Slovakia lost out. Was it a "test case" before the global elections in 2024?

It was Argentina's turn in October-November 2023, following which an article in *The New York Times* perceived that "with its expanding power and falling cost, it [AI] is now likely to be a factor in many democratic elections around the globe". Deepfakes were used in the recent Assembly elections in Madhya Pradesh and Telangana, either through doctored clips of the game show "Kaun Banega Crorepati" or a fake video of a leader allegedly pushing voters to support their

opponent. Additionally, fake accounts that amplify particular messages and generate artificial trends can be orchestrated by AI-powered bots to flood social media sites, yielding the false impression that a particular politician or subject is widely supported. Social media, the old instrument, is, therefore, interwoven with AI technology.

The political landscape is changing

However, AI can play a far wider role in elections than just disseminating disinformation. It can be used in the entire spectrum of campaign strategies, from the preliminary steps of voter identification to the intricate details of content development and delivery. With real-time analytics on campaign performances, AI is raising the bar for political campaigns with its data-driven and effective micro-targeting strategy. The political landscape is changing quickly due to GenAI technology, which presents both the potential and challenges for the 2024 elections.

The United States government has outlawed robocalls using AI-generated voices in its response to the Biden robocall incident. Technology behemoths including Microsoft, Google, OpenAI, and Meta have vowed to combat AI content that aims to deceive voters. But will they be able to complete the task fully proofed?

There is general concern that, similar to Slovakia, election-related generated contents may shape last-minute attempts to deter voters from exercising their right to vote or create an event with a manufactured portrayal of a candidate that is challenging to swiftly debunk. A few months ago, an AI-created image of Donald Trump's arrest went viral. What would happen if a picture like that went viral a day before the election?

AI will be far more efficient five years later, in 2029, but as one might perceive, the world will also be more resilient, accustomed, and prepared for AI's deceptive effects. It is a realm of unknowable unknowns right now. And, a lot of uncertainties remain.





AI APPLICATION IN ELECTION

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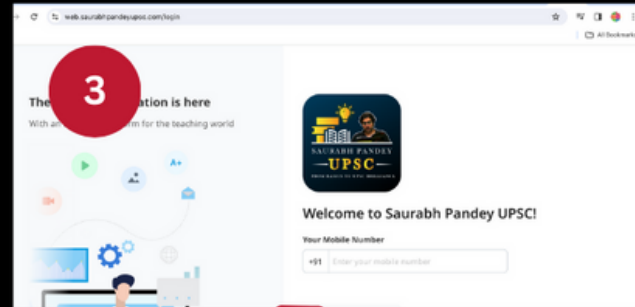
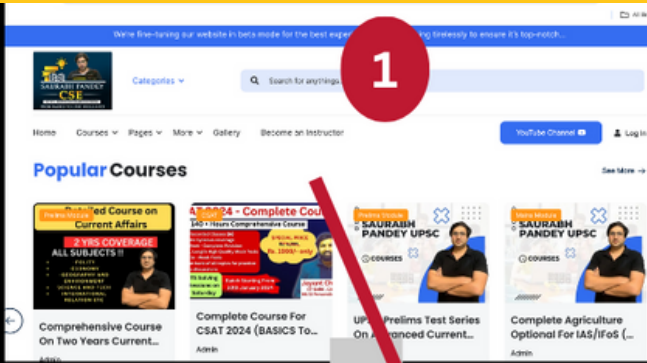
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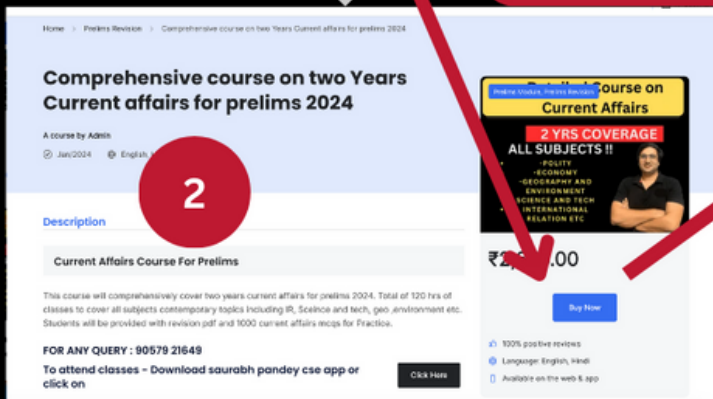
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Q "AI is making democratic procedures as disinformation directed" Suggest steps to limit the impact of AI in election

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