

Editorial

“Regard every impossibility as a possibility that you should rise to make.”

- Sri Aurobindo

Gazing at space is for the ordinary. But extraordinary people like Jeff Bezos and Richard Branson have made space tourism possible, albeit in its nascent stages. Who would have believed that a humble sanitation worker could join the ranks of state civil service until Asha Khandara made it happen?

It took the confident assertiveness of an Indian minister to make Europe reverse its stand on issuing green pass to Indian travellers.

Sheer conviction made Bhuri Bai transform from a mere tribal girl with interest in art into an inspirational artist, empowering women of her tribe.

The people of Mawlynnong in Meghalaya proved that with collective effort, one can create wonders and turn a humble village into “God own garden.”

India is developing its potential in technological self-reliance by building an indigenous air craft carrier. Gone are the days when India was denoted by snake charmers. From building its largest solar park and green hydrogen plant, our nation is making developmental strides, with responsibility to Mother Nature.

It is possible to make India a *Vishwaguru* again when youngsters like you kindle the spirit of patriotic fervour and put your best foot forward.

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 in advanced stages of preparations for bringing out a print version.

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. A preprint survey would help us decide with respect to the numbers.

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. Please note that we intend this to be, in the long run, a national magazine for school children.

<https://zfrmz.in/Jmku7z6WZWDg1hqZjzcW>

In this issue



**NEWLY IDENTIFIED
ANCESTORS OF
NEANDERTHALS**



**TOKYO
OLYMPICS**



**COVISHIELD ADDED TO
EUROPEAN
GREEN PASS LIST**



**INDIAN BORN
ASTRONAUT IN
SPACE**



**JEFF BEZOS
AND
SPACE TOUR**



**NAFTALI BENNETT
NEW PRIME
MINISTER OF ISRAEL**



**SHER BHADUR
DEUBA WINS VOTE OF
CONFIDENCE**



**TEAM
MODI
2.0**



**72nd
VAN MAHOTSAV
2021**



**GANDHINAGAR
RAILWAY STATION
INAUGURATED**



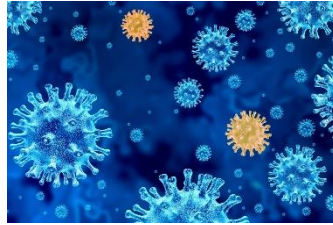
**NEW GOVERNORS
FOR 8
STATES**



**MANUFACTURE
OF
NOVAVAX**



INDIA'S FIRST GREEN HYDROGEN PLANT



LAMBDA VARIANT



ONLY STATE WITH 3 TYPES OF CROCODILES



RAILWAYS DEVELOPMENT IN NORTH EASTERN INDIA



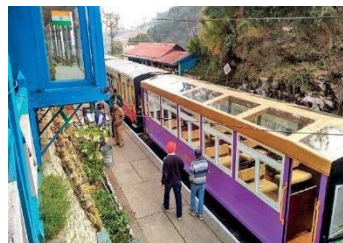
INDIA'S FIRST GRAIN ATM



INDIA'S FIRST DOLPHIN RESEARCH CENTRE



INS VIKRANT ANOTHER ATMANIRBHAR INITIATIVE



VISTADOME TRAIN



INDRAJAAL A POWERFUL DEFENCE SHIELD



IAF TO PROCURE 10 ANTI-DRONE SYSTEMS



AFGANISTAN AND THE TALIBAN CONUNDRUM



EXTREME WEATHER EVENTS



PEGASUS SPYWARE AND ITS IMPLICATIONS



PEW RESEARCH ON RELIGION IN INDIA



IVERMECTIN – WONDER DRUG OF THE PANDEMIC

CURIOSITY corner



RESPONSIBLE BORROWING



CONSTITUTIONAL LAW-II



Padma Vibhushan Padma Bhushan Padma Shri

Know Your Padma Awardees



Architectural Wonders of India



Flora & Fauna of India



Know Your Legacy



Know Your Nation



Swachh Bharat Success stories



THE INSPIRING STORY OF ASHA KHANDARA

Newly Identified Ancestor of Neanderthals

Archaeological digs near the city of Ramla uncovered prehistoric remains that could not be matched to any known species from the *Homo* genus, including modern human. An international group of archaeologists has discovered a missing piece in the story of human evolution.



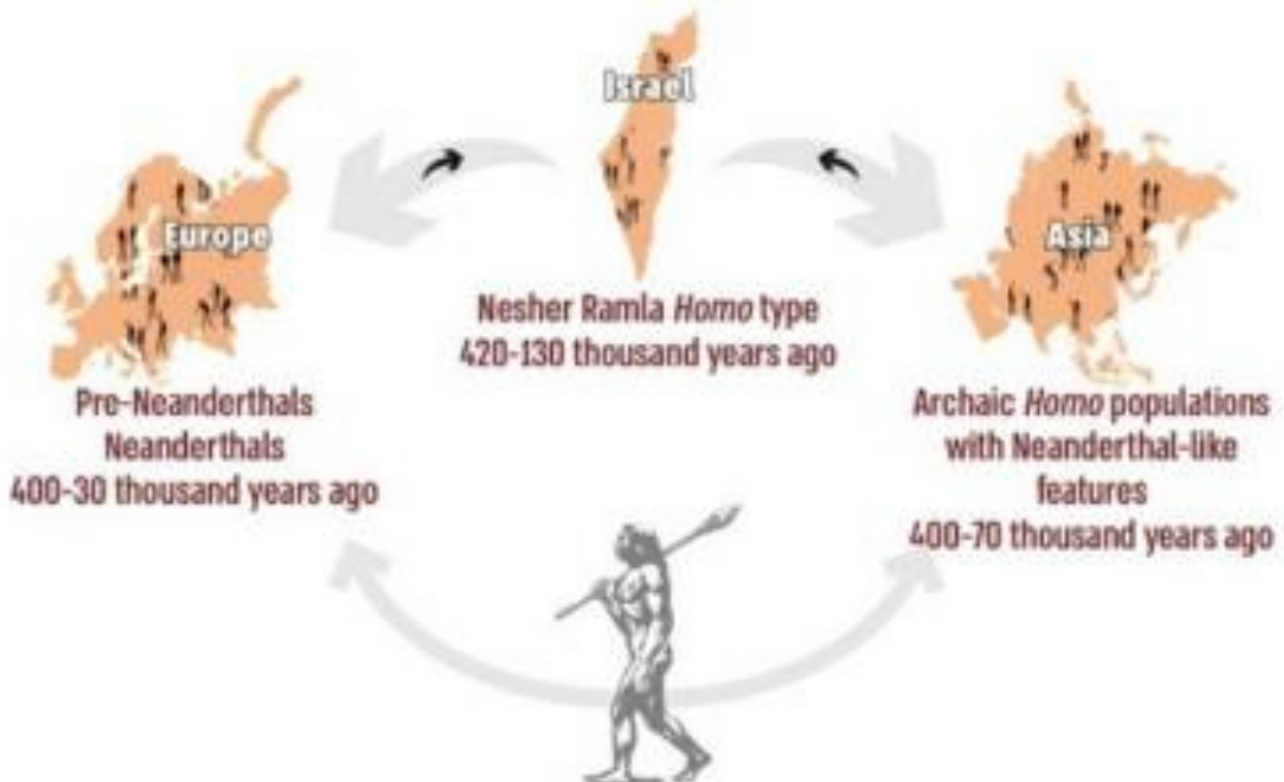
Anthropologists and archaeologists led by Yossi Zaidner labelled the find the "**Nesher Ramla Homo type**" after the site.

The **Nesher Ramla Homo** groups are archaic humans who lived during the Middle Pleistocene in modern-day Israel. In 2010, evidence of a tool industry was discovered at **Nesher Ramla**.

A skull that may represent a late-surviving example of a distinct *Homo* population that lived in and around modern-day Israel from about 420,000 to 120,000 years ago was recovered.

The Nesher Ramla Homo Type

The Nesher Ramla Homo type was an ancestor to both the Neanderthals in Europe and the archaic Homo populations of Asia





Nesher Homo displays a completely different skull structure, no chin and very large teeth.

THE NEW FOSSILS

Pieces of a skull, including a right parietal (toward the back/side of the skull) and an almost complete mandible (jaw) were dated to 140,000–120,000 years ago, with the finding that it wasn't fully *Homo sapiens*.

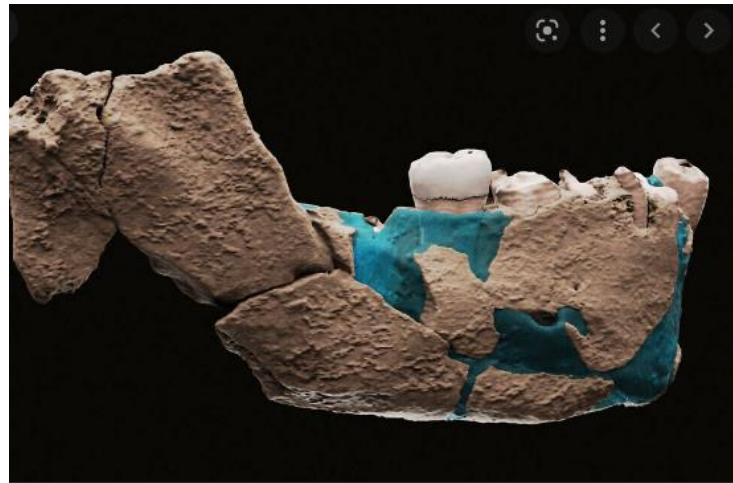
Nor were they Neanderthal, however, which was the only other type of human thought to have been living in the region at the time.

Instead, this individual falls right in the middle: a unique population of Homo never before recognized by science.

Through detailed comparison with many other fossil human skulls, the researchers found the parietal bone featured “archaic” traits that are substantially different from both early and recent *H. sapiens*.

In addition, the bone is considerably thicker than those found in both Neanderthals and most early *H. sapiens*. The jaw, too, displays archaic features, but also includes forms commonly seen in Neanderthals.

The bones together reveal a unique combination of archaic and Neanderthal features distinct from both early *H. sapiens* and later Neanderthals.



AND THERE WAS FIRE!

The site also produced bones of animals caught, butchered and eaten on-site.

These findings indicate Nesher Ramla *Homo* hunted a range of species, including tortoise, gazelle, aurochs, boar and ostrich.

Furthermore, they were using **fire to cook their meals**, evident through the uncovering of a campfire feature the same age as the fossils.

Indeed, the Neshar Ramla *Homo* were not only collecting wood to make campfires and cook, but also actively managing their fires as people do today.

Most impressive is that the campfire feature survived, intact, outside of a protected cave environment for so long.

It is now the oldest intact campfire ever found in the open air.

In sum, if we think of the story of human evolution, this discovery is effectively like finding the missing shelf buried at the bottom of the box.

The new Neshar Ramla *Homo* allows for a better-fitting structure, although a few mysterious “extra” pieces remain to be pondered over.



Tokyo Olympics

OLYMPIC MOTTO

“FASTER, HIGHER, STRONGER - TOGETHER”

The world's biggest athletic event supposed to take place last year was postponed due to the Covid 19 pandemic.

As you read this issue, the final curtains would have been drawn until the athletes meet again in Paris (France) in the Summer Olympics of 2024.

OFFICIAL LOGO

Harmonized chequered emblem

Chequered patterns have been popular in countries around the world throughout history. In Japan, the chequered pattern became formally known as “ichimatsu moyo”.

The traditional Japanese colour of indigo blue expresses a refined elegance and sophistication that exemplifies Japan.

Composed of three varieties of rectangular shapes, the design represents different countries, cultures and ways of thinking.

It incorporates the message of “Unity in Diversity”.

A 52 year old architect named Asao Tokolo designed the emblem.

Smt Ghana Saraswathy M



Together



The Olympic motto is *Citius, Altius, Fortius*, a Latin expression meaning **“Faster, Higher, Stronger”**.



MASCOT OF TOKYO OLYMPICS



Miraitowa

The Games mascot is styled with the Ai (indigo blue) Ichimatsu pattern from the Games emblem, a tribute to both the respected tradition and modern innovation of Japanese culture.

MIRAITOWA is inspired by the Japanese proverb, “learn from the past and develop new ideas.”

It is cheerful and remarkably athletic, with a very strong sense of integrity; and has the special power to instantly teleport anywhere it wants.

Do You Know?

The name MIRAITOWA is based on the Japanese words "mirai", meaning “future”, and "towa", meaning “eternity”, representing the wish that the Tokyo Olympic Games will lead to a future of everlasting hope in the hearts of everyone around the world.

INDIAN CONTINGENT TO TOKYO OLYMPICS

127 sportspersons from India competed in 18 disciplines of the Games, the highest so far.

These are **Archery, Athletics, Boxing, Badminton, Equestrian, Fencing, Golf, Gymnastics, Hockey, Judo, Rowing, Shooting, Sailing, Swimming, Lawn Tennis, Table Tennis, Wrestling and Weight Lifting.**

Flag Bearers for the Opening Ceremony



Men's Hockey Captain Manpreet Singh
Indian Boxer - Mary Kom

Flag Bearer for the Closing Ceremony



Indian Wrestler - Bajrang Punia

Out of these, men and women's hockey and athletics accounted for 38 players and 32 athletes respectively, while in five other events – Equestrian, Fencing, Judo, Weight Lifting and Gymnastics the country were represented by a single competitor.

New Sports Introduced in Tokyo Olympics



BASEBALL

A battle between pitcher and batter

The tussle between pitcher and batter is at the heart of baseball.

Top-level pitchers attempt to bedevil batters with blazing fastballs that are pinpoint in their accuracy and travelling at up to 160 kph, along with many other variations that deploy subtle movement and changes of pace.

Pitchers are often substituted for reasons of both fatigue and strategy. The fielders have the task of ensuring that the powerful hits sent their way by batters end as an out, with spectacular diving catches and powerful throws from deep in the outfield.

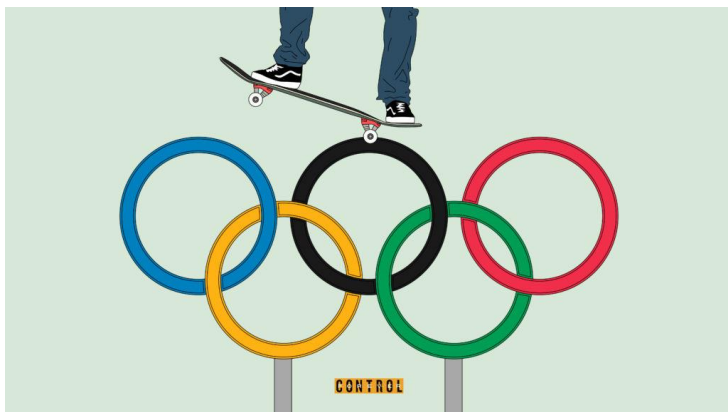


KARATE

Broadly speaking, karate competition consists of kata (forms) and kumite (sparring).

Kata are demonstrations of forms consisting of a series of offensive and defensive movements targeting a virtual opponent.

Key factors include the strength, speed, rhythm, balance and power of strikes and kicks; the solidity, clarity and force of movements; and the proper expression of the meaning of each technique with beautiful, flowing motion.



SKATE BOARDING

Supreme skills and youthful cool

Each skateboarder performs individually and uses each section to demonstrate a range of skills or 'tricks'.

Judging takes into account factors such as the degree of difficulty of the tricks, height, speed, originality, execution and the composition of moves, in order to award an overall mark.



SPORT CLIMBING

The sport made its Olympic debut at Tokyo and feature three disciplines: **Speed, Bouldering and Lead.**

In Bouldering, athletes scale a number of fixed routes on a 4.5m wall in a specified time. In Lead, athletes attempt to climb as high as possible on a wall measuring over 15m in height within a specified time.

At the Games, each climber will compete in all three disciplines, and the final rankings will be determined by multiplying the placement in each discipline, with the athletes achieving the lowest scores winning medals.



SURFING

Searching for speed, power and flow

In the ocean, no two waves are ever the same, so each wave breaks differently offering a different scoring potential.

A panel of five judges will score each ride based on the judging criteria.

The criteria reflect the definition of good surfing and are based upon the key elements of commitment and degree of difficulty, innovative and progressive manoeuvres, combinations of major manoeuvres, variety of manoeuvres, and speed, power and flow.

Rather than riding as many waves as possible or performing a large quantity of manoeuvres, the athletes will often be very selective to choose waves that offer the most critical sections available, attempting to perform the most quality manoeuvre.

Do You Know?

What happens when a line judge can't see whether the shuttlecock has landed inside or outside the court boundaries?

The line judge covers the eyes with both hands to signal to the umpire that he/she wasn't able to see where the shuttlecock landed. If the umpire is also unable to make a call, the play is treated as "a let", the play since the last service shall not count and the player who served shall serve again.

Some archers shoot right-handed and some archers shoot left-handed. However, some right-handed archers shoot left-handed and some left-handed archers shoot right-handed. Why?

This is because of their 'dominant eye'. Approximately 70% of people have an eye dominance that matches their handedness (for example, right eye dominant, right hand dominant). The other 30% choose to mix because eye dominance is more important in archery than handedness due to the way athletes aim. Athletes wearing patches over their eyes are covering up their dominant eye so that they can use their normal handedness and have no problem seeing the target.

What is passivity zone in wrestling?

The competition is held on a circular mat (9m in diameter) which includes an orange band of 1m wide and forming an integral part of the wrestling area is drawn along the circumference on the inside of the circle. That band is called the **passivity zone**.

What materials were springboards made of when diving became an Olympic sport?

Earlier **cedar**, which has relatively little elasticity, was used.

Today's springboards are made from **aircraft-grade aluminium** which generates a large amount of bounce.





INDIA'S PRIDE

MEDAL WINNERS IN THE TOKYO 2020 OLYMPICS



Neeraj Chopra - GOLD - Javelin Throw



Mirabai Chanu - SILVER - Weightlifting



Ravi Dahiya - SILVER - Wrestling (57kg)



**PV Sindhu
BRONZE - Badminton**



**Lovina Borgohain
BRONZE - Boxing**



**Bajrang Punia
BRONZE - Wrestling (65 kg)**



Men's Hockey - BRONZE



With the world still recovering from the second wave of COVID-19 and a potential third wave looming, nations are amping up their vaccination efforts.

The Government of India launched one of the most extensive drives to vaccinate a priority group of more than 300 million people comprising frontline and healthcare workers, and people above 45. Having opened it to those above 18, India's vaccine coverage has exceeded 500 million as of 9th August.

Two of the vaccines approved for usage in India are Covishield and Covaxin. Covishield received WHO approval in February 2021. Covaxin's application for WHO approval is under review.

What is a Green Pass or Vaccine Passport?

Now that many countries have reopened their borders for travellers, with some restrictions, the European Union has introduced a new “**vaccine passport**” or “**Green Pass**” programme.

This allows fully vaccinated people to travel with fewer restrictions within the borders of the 27 EU countries, Switzerland, Iceland, Norway and Liechtenstein. Vaccines recognized by the EU include Vaxzevria by Oxford-AstraZeneca (AZ), Pfizer-BioNTech, Moderna, and Janssen by Johnson & Johnson.

Nine European nations add Covishield to their List

Recently, the Indian government urged the EU states individually to include Covishield and Covaxin to their list of vaccines accepted for a Green Pass.

It also said that it would institute a reciprocal policy to accept the EU's Digital Covid Certificate.

The EU's Digital Covid Certificate is available to all 27 member states and four associated European nations - Switzerland, Norway, Iceland, and Liechtenstein.



Following requests and firm statements from India's external affairs ministry, seven EU countries have approved India's vaccines for arriving travellers.

Those who have taken 2 doses of Covishield are eligible to travel to Austria, Germany, Slovenia, Greece, Ireland and Spain. Switzerland and Iceland also accept travellers from India who have taken Covishield.

Estonia has announced that it will accept travellers who have taken any vaccine authorized by the Indian government.

Europe hasn't opened its borders for non-essential travel from non-European countries yet. It may gradually open the borders if the third wave doesn't strike. Mass vaccination is the only way to end the pandemic. Stay home. Stay safe.

Do You Know?

The EU's Digital Covid Certificate is issued if the individuals have:

- i) Received their vaccination
- ii) Recently had a negative PCR test
- iii) Recently recovered from Covid-19.

Right now, the certificate is only issued for traveling within the EU. But in the future, it may become a general norm for international travel. A reciprocal agreement between Europe and India to honour each other's vaccination certificates can be highly beneficial.



Indian- Born Astronaut in Space

Smt Sarada Devi Ravatu

On 11th July, 2021, aeronautical engineer Sirisha Bandla (34) flew on the Virgin Galactic Unity 22 test flight alongside British billionaire Richard Branson and four others from the US.

During the flight, she conducted an experiment to investigate how plants react to the change in gravity. They reached an altitude of about 88 km, enough to see the curvature of the earth.

A DREAM COME TRUE

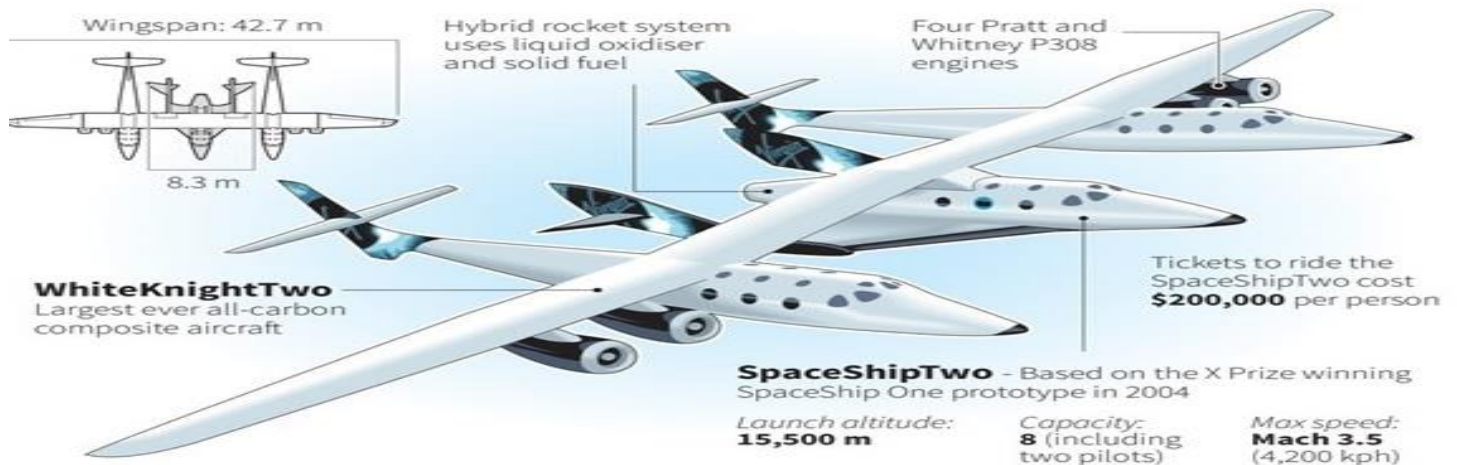
- ➔ Due to poor eyesight, Bandla could not become a pilot or an astronaut for NASA.
- ➔ Became the third Indian-origin woman to fly into space after Kalpana Chawla and Sunita Williams.
- ➔ Wing Commander Rakesh Sharma is the only Indian citizen to travel in space, aboard Soyuz T-11 in 1984.



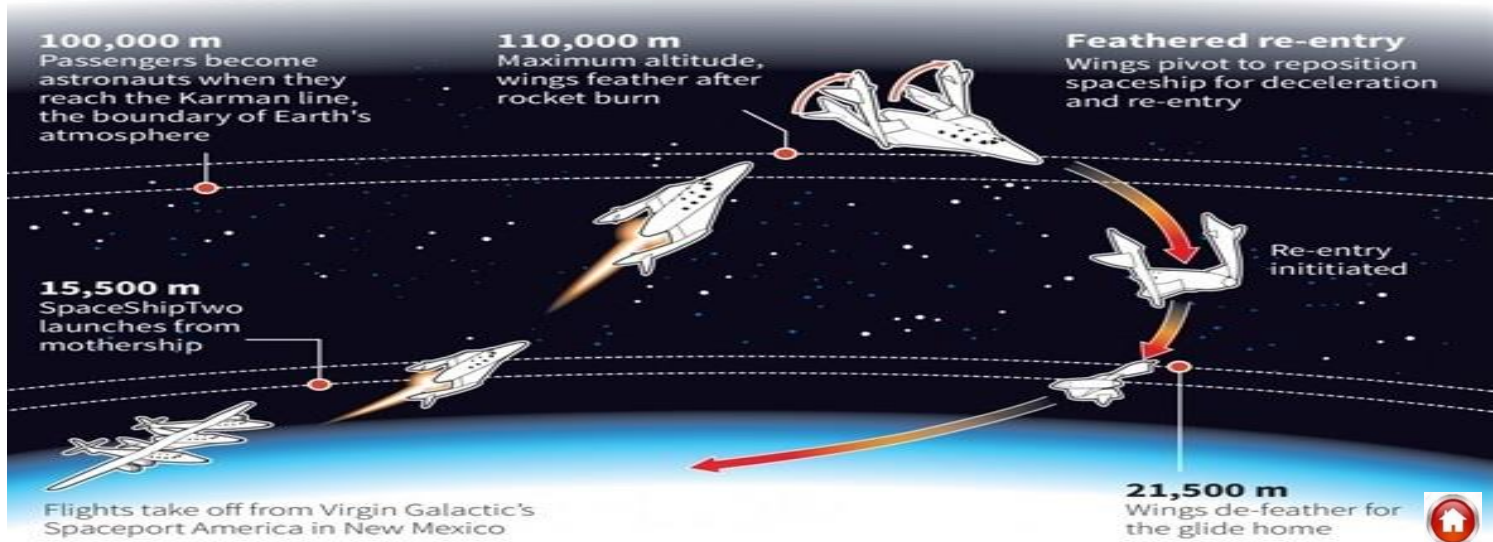
BORN :
Guntur, Andhra Pradesh, India.
TIME IN SPACE :
1 minute 10 seconds

Lift-off for private space flight

Virgin Galactic's spacecraft made its first rocket-powered flight on July 11. Below is a diagram of how its flight sequence works.



FLIGHT PATH



Note: Illustration not to scale

Source: Virgin Galactic

Jeff Bezos and Space tour

Amazon.com Inc. founder Jeff Bezos made a short journey on 20th July 2021 to space in **New Shepard**, a rocket ship built by Bezos' company Blue Origin.

It is designed to open a market in space tourism. He was accompanied by Mark Bezos, his brother, Wally Funk, an 82-year-old pioneer of the space race, and an 18-year-old student, Oliver Daemen.

They travelled in a capsule with the biggest windows flown in space.

The **10-minute, 10-second flight** offered stunning views of the earth.

Blue Origin has been flight testing New Shepard and its safety systems since 2012.

The program has had 15 successful consecutive missions including 3 successful escape tests, showing that it can activate safely in any phase of flight.

The spacecraft lifted off from a private launch site near Van Horn, Texas.

Two minutes into the flight, the capsule separated from its rocket and continued upwards towards the **Karman Line - the most widely recognised boundary of space, that lies 100km up**, where the passengers experience a few minutes of weightlessness and unforgettable views.

They then strapped back in and fell toward the ground with six parachutes.



From left: Mark Bezos, Jeff Bezos, Oliver Daemen, Wally Funk



Do You Know?

- ➔ The rocket ship is named after Mercury astronaut Alan Shepard, the first American in space.
- ➔ The date coincides with the 52nd anniversary of Apollo 11 moon landing.
- ➔ Certain iconic items from aviation history were taken on the flight - a canvas piece used on the Wright brothers' first plane, a medallion made from the vehicle that performed the first hot air balloon flight in 1783 and a pair of goggles used by pilot Amelia Earhart.



NAFTALI BENNETT – New Prime Minister of Israel

Following Benjamin Netanyahu's 12 year run as the Prime Minister of Israel, the Knesset appointed Naftali Bennett as his successor on 13th June 2021.

The Knesset, a Hebrew word meaning gathering, is a 120-member parliament with complete control over the Israeli government.

Previous Experience

Naftali Bennett has had extensive experience in Israeli politics. He was a supporter of the former PM Netanyahu but severed ties with him in 2008 following personal and political differences.

He is a member of the Yamina or the Union of Right-Wing Parties of Israel and his policies and ideologies are consistent of the representatives of the party.

Immediate actions

Naftali Bennett has been instrumental in pushing COVID-19 vaccination efforts and has even proposed a 3rd dose to those above 60 to battle the fast-spreading Delta variant.

More than 55% of the Israel's population has been double vaccinated and Bennett has assured that these efforts will not slow down.

Bennett has stated that tourism to Israel will continue to be restricted until the pandemic is under control.

His stances on battling the spread of COVID-19 have earned him much praise in the international stage.

Political beliefs and history

Other important aspects of Bennett's political history include his economic reform of Israel and the lowering of food prices. He has bolstered trade and export, thereby encouraging foreign trade relations. This is expected to continue during his tenure.

While voicing support for equal civil rights of LGBTQ people he has opposed same-sex marriage laws.



PORTFOLIOS HELD

2013 - 2015	Minister of Economy Minister of Religious Services
2013 - 2019	Minister of Diaspora Affairs
2015 - 2019	Minister of Education
2019-2020	Minister of Defence
2021	Prime Minister Minister of Community Affairs

The Israel-Palestine Conflict

Bennett, throughout in his tenure in politics, condemned the actions of Hamas, the Islamic Resistance Movement, which has taken over Palestine.

He is a strong advocate of a Jewish Nation State and is interested in extending Israeli sovereignty and control to 60 percent of the West Bank.

The Palestinian people were doubtful about peace negotiations with Netanyahu, but considering Bennett's ideologies and his stance on "taking back the biblical land" for the Jews, hope for an independent Palestinian State and peace continues to decline.

Only time will tell how Bennett will handle the fragile peace between Israel and Palestine, and how much horror will come out of the region if the peace breaks.

The future will be dependent on the policies adopted by Naftali Bennett. He is expected to hold office till 23rd March 2023, after which he will be succeeded by **Yair Lapid**.



Sher Bahadur Deuba wins vote of confidence

Smt Sarada Devi Ravatu



Sher Bahadur Deuba took over as Prime Minister of Nepal from 13th July 2021.

The lower house was unconstitutionally dissolved by the President Bidya Devi Bhandari for the second time in five months on May 22nd on the recommendation of the then Prime Minister K P Sharma Oli.

What is the Supreme Court order?

- The Supreme Court of Nepal overturned PM KP Sharma Oli's decision and ordered the appointment of Deuba.
- Deuba had to seek a vote of confidence from the House within 30 days of his appointment as the prime minister as per the constitution.
- The President had summoned the meeting of both the Houses of the Parliament on July 18th.

The vote of confidence

- Sher Bahadur Deuba won the vote of confidence on the first day of the restored House session.

- He secured 165 votes as against the required 136 in the 275-member House of Representatives with his Nepali Congress being joined by other parties — including a section of the main opposition Communist Party of Nepal-Unified Marxist Leninist (CPN-UML).
- He will remain in office for the next one and a half years until a fresh parliamentary election is held.

Less known facts about Nepal

- Nepal was always an independent country (was never under any foreign invasion).
- Nepal is the only Country in the world having non-rectangular national flag.
- Tilicho Lake is the world's highest lake at the height of 4,800m above sea level.
- Shey-Phoksundo Lake is the deepest Lake in the whole world with 145m depth.
- The deepest gorge in the world is "Kali Gandaki Gorge" which is 5,571m deep.



On 7th July 2021, the Narendra Modi Government at the Centre underwent a Cabinet rejig which saw some new ministers getting inducted, some ministers getting promoted while a few others resigned.

It is a practice for any government to reshuffle the cabinet in the midst of a term based on the performance of ministers. The reshuffle is also done to give opportunities to other members, to accommodate alliance partners and also in view of forthcoming crucial State Assembly elections.

Salient Features

The newly formed cabinet is a cabinet of records as it is a cabinet of many firsts.

Independent India's youngest-ever cabinet: The average age of the newly formed cabinet of PM Modi is 58 years.

Fourteen ministers are below 50 years. 6 Cabinet Ministers are below 50 years. Nisith Pramanik of Cooch Behar, West Bengal is the youngest in the cabinet.

A cabinet of academically and professionally accomplished: There are 13 lawyers, 7 former civil servants, 6 doctors, and 5 engineers. 7 ministers have PhDs and 4 of them have an MBA degree. In total 68 ministers have a graduate degree.

An inclusive cabinet: This cabinet is the most inclusive cabinet India has ever had in terms of women, caste, religion and geographic representation.

Women Representation: There are a total of 11 women from 9 states in the Council of Ministers. Two women are cabinet ministers.

SC/ST Representation: There are 12 ministers belonging to the Scheduled Caste (SC) from 8 states out of which 2 are cabinet ministers. There are 8 ministers from 8 states belonging to the Scheduled Tribes community of which 3 hold Cabinet rank.



OBC Representation: There are 28 ministers from Other Backward Castes (OBC) from 15 states of which 5 hold cabinet rank.

Minorities Representation: There are 1 Muslim, 1 Christian, 1 Sikh and 2 Buddhist ministers and of them 3 hold cabinet rank.

In a nutshell, this is the most talented cabinet representing the aspirations of a New India.

A glance at some of the ministers

Nisith Pramanik - Union Minister of State for Home Affairs; Minister of Youth Affairs and Sports

The youngest minister in the cabinet is only 35 years of age. He has completed Bachelors in Computer Applications and worked as an assistant teacher at a primary school.

He was elected to the Lok Sabha in 2019 from West Bengal's Cooch Behar winning the seat by 54,231 votes.

Mansukh L. Mandaviya - Minister of Health and Family Welfare; Minister of Chemicals and Fertilizers

He joined politics at a very young age and holds the record of being the youngest MLA in Gujarat. He had also served as Minister of State holding portfolios like Road Transport and Highways, Chemicals & Fertilisers etc.

In 2015, he represented India at the United Nations and delivered a speech on '2030 Agenda for Sustainable Development.'

Piyush Goyal - Minister of Commerce & Industry and Ministry of Consumer Affairs, Food & Public Distribution; Minister of Textiles

His tenure as Railways Minister saw the elimination of all unmanned level crossings, and railways achieved its best ever safety record.

Kiren Rijju - Minister of Law and Justice

A lawyer by profession, he increased the sports budget and made **Fit India** a mass movement during his stint as Minister of State (Independent Charge) for Youth and Sports Affairs.

Dr. L. Murugan - Minister of State for Fisheries, Animal Husbandry & Dairying; Information & Broadcasting

Until the time he was appointed minister, he served as the BJP President of Tamil Nadu. He is a lawyer by profession and has served as the Vice Chairman of the National Commission for Scheduled Castes.

Smriti Irani - Minister of Woman and Child Development

Smriti Irani who held the portfolio of textiles launched the **Samarth Scheme to upskill over 4 lakh workers** in 16 states and gave special focus for textiles of north-east India. As HRD Minister, she was instrumental in rolling out the **SWAYAM** a Massive Open Online Courses (MOOCS) platform.

Sushri Pratima Bhoumik - Minister of State of Social Justice and Empowerment

The Lok Sabha MP from Tripura comes from a humble background with a degree in Bio-Science; practises farming.



72nd Van Mahotsav 2021

"Trees exhale for us so that we can inhale them to stay alive. Can we ever forget that?"

Let us love trees with every breath we take until we perish" - Munia Khan

India has many festivals and stories related to forests and trees. One of the most celebrated festivals is **Van Mahotsav**, dedicated to tree planting.



Smt Archana Sundar

Hey Motu! What's happening here?

That's our Union Environment Minister Prakash Javadekar kickstarting the Van Mahotsav week by planting Parijat sapling.



He said, "India has set a target of creating additional 2 billion tonnes carbon sequestration by 2030."



Van Mahotsav???

Yes, here's a bit of history.



The First Van Mahotsav (20th to 27th July 1947) organised by botanist MS Randhawa was inaugurated by Khurshid Ahmad Khan, commissioner of Delhi by planting Bauhinia saplings.

It was made a national activity in 1950 by the Minister of Food and Agriculture K.M. Munshi. Later moved to the first week of July and given the present name Van Mahotsav in 1950.



Yes, even The Global Forest Watch in its report stated that in 2019 -20, India lost approximately 38.5 thousand hectares of tropical forest which is nearly 14 % loss of tree cover.

The total tropical forest area in the country fell by 0.38% and the total tree cover decreased by 0.67 % in the country during the same period.

Hence Van Mahotsav plays a crucial role when the vegetation is under threat more than ever due to human activities. It is an opportunity to restore the green cover.



But, what can **we** do about this Motu?



We can do our bit

- Stop buying products produced by destroying forests; avoid them.
- Plant trees wherever possible; create and spread awareness.
- Practise 5 R's

THE FIVE R'S



Gandhinagar Railway Station Inaugurated

Smt Ramamani N

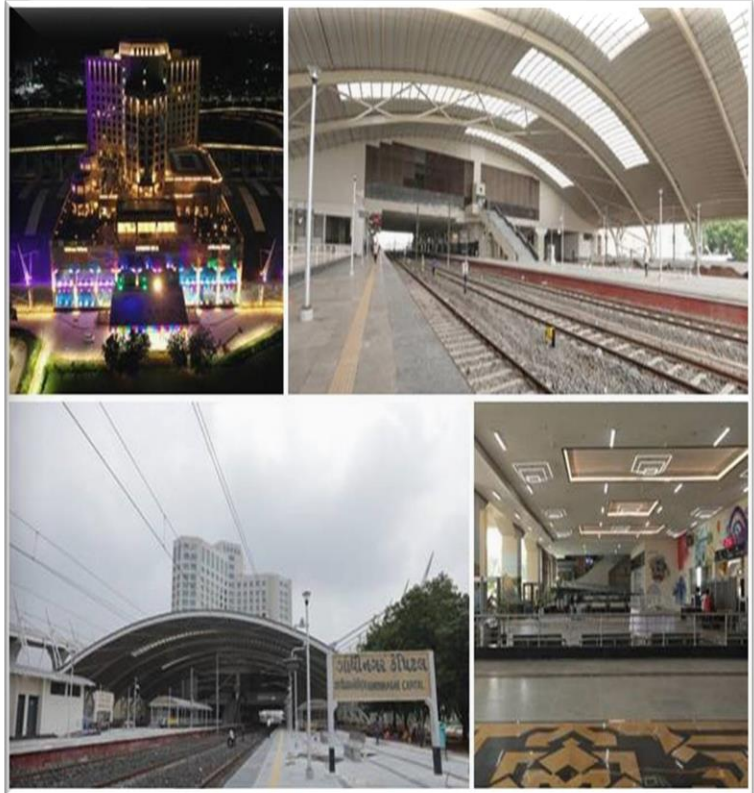
The Railway Station at Sector-14 of Gandhi Nagar, the capital of Gujarat, was virtually inaugurated by Prime Minister Shri Narendra Modi on 16th July 2021. The iconic railway station with enhanced safety, cleanliness and sophisticated infrastructure demonstrates the reputation of Indian Railways.



The PM said, “Modern facilities should be enjoyed not just by the privileged, but also by the ordinary people.” The redeveloped station project is a first of its kind in the country. It is likely to have similar projects in cities like Mumbai and Bangalore.

Features

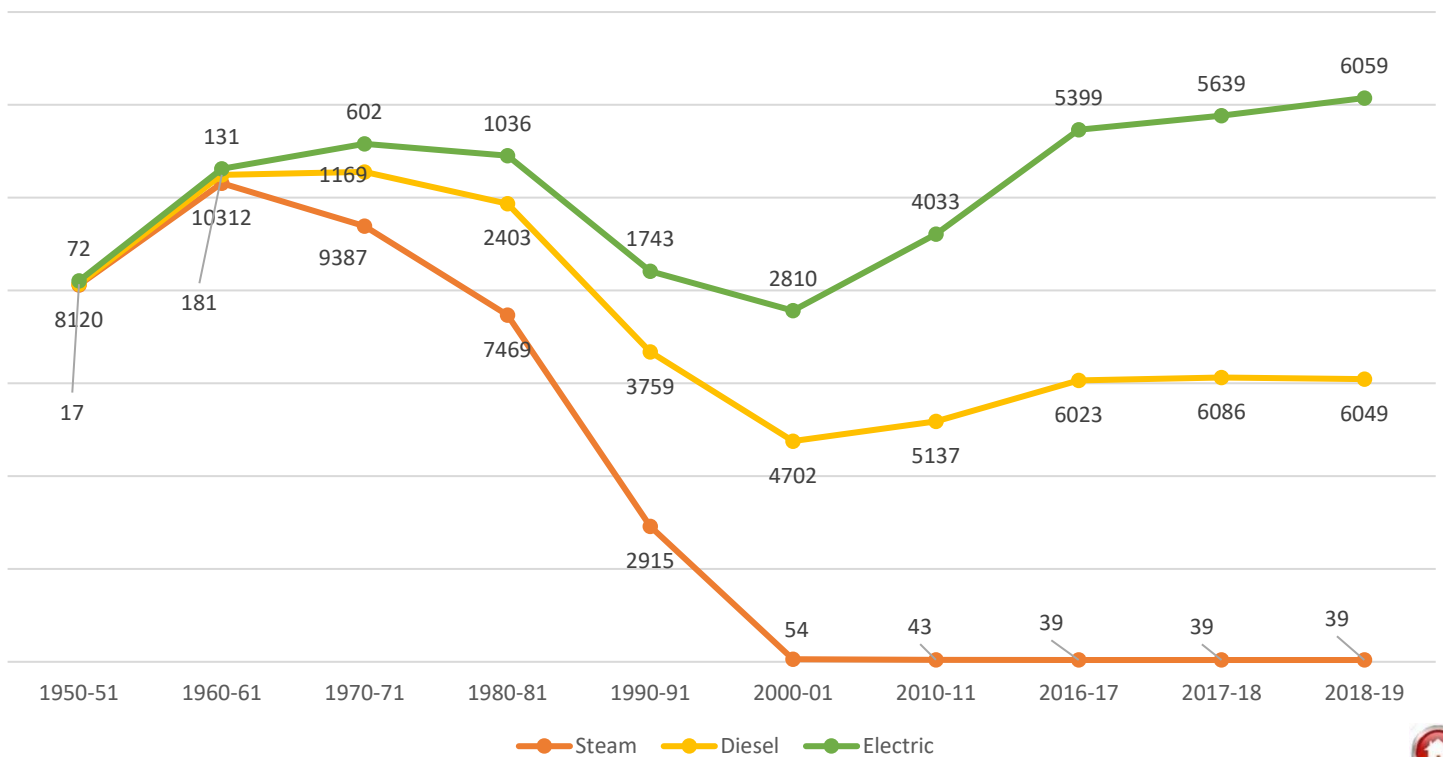
- ➔ Has a column free, sleek and economical space frame of 105-meter span, the longest in Indian Railways.
- ➔ The civil structure will have an endurance of 120 years.
- ➔ The roof is covered with **KALZIP** Aluminium sheeting over all platforms for protection from sun/ rain to the passengers.
- ➔ Is disabled-friendly.
- ➔ Has a five-star hotel operated by a private entity.



Do You Know?

- ➔ **KALZIP Aluminium** is known for its high strength and corrosion resistance.
- ➔ Indian Railways has been reducing its fleet of steam locomotives. The graph shows the year-wise details.

No. of Locomotives(indianrailways.gov.in)



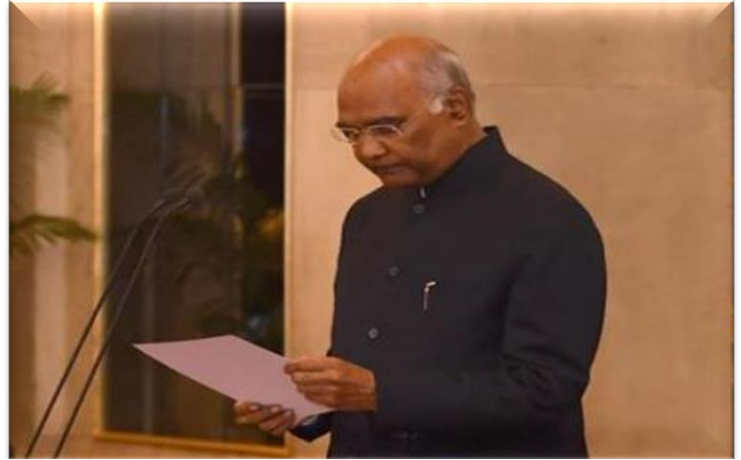
New Governors for 8 States

Smt Ramamani N

The President of India, Shri Ram Nath Kovind appointed new governors for eight states of the country.

In a major reshuffle, cabinet minister Vajubhai Rudabhai Vala has been appointed as the Governor of Karnataka.

The governors of Mizoram, Haryana, Tripura, and Himachal Pradesh are being shifted to Goa, Tripura, Jharkhand and Haryana respectively.



State	Governor-Present	Governor-Previous
Karnataka	Shri Thaawarchand Gehlot	Shri Vajubhai Rudabhai Vala
Mizoram	Dr Hari Babu Kambhampati	Shri P. S. Sreedharan Pillai
Madhya Pradesh	Shri Mangubhai Chhaganbhai Patel	Smt Anandiben Patel
Himachal Pradesh	Shri Rajendra Vishwanath Arlekar	Shri Bandaru Dattatreya
Goa	Shri PS Sreedharan Pillai	Shri Bhagat Singh Koshyari
Tripura	Shri Satyadev Narayan Arya	Shri Ramesh Bais
Haryana	Shri Bandaru Dattatraya	Shri Satyadev Narayan Arya
Jharkhand	Shri Ramesh Bais	Smt Draupadi Murmu

Do You Know?

- ➔ A person to be appointed as governor should be 35 years old and be a citizen of India.
- ➔ S/he shall not be an MLA or MP.
- ➔ S/he appoints the Chief Minister, ministers and the Advocate General for the state.
- ➔ 24 women have been governors in India so far.



Manufacture of Novavax (Covovax)

Smt Nandhini S

Towards end of June, Serum Institute of India (SII) commenced the manufacture of NOVAVAX (Covovax in India).

The vaccine is expected to be launched in September 2021.

What is Novavax/ Covovax?

COVOVAX vaccine is the protein-based COVID-19 vaccine NVX-CoV2373 developed by Novavax Inc, a US-based company which has a manufacturing agreement with SII.



Novavax in March 2021 had stated that NVX-CoV2373 showed an efficacy of 96.4 per cent against mild, moderate and severe infection caused by the original strain of COVID-19 during its Phase 3 trials.

In the case of variants, it had shown 86.3 % efficacy against the Alpha variant (B.1.1.7) found in the UK.

How does this work?

This protein-based vaccine targets the spike protein of the SARS-CoV-2 that enables the virus to enter the human cells.

Once the vaccine is administered, the immune system recognises the copies of the spike protein in the vaccine and builds up the immunity, by producing antibodies.

Do You Know?

→ The drugs regulatory body of India has given permission to Cipla to import Moderna’s COVID-19 vaccine for emergency use. The first international vaccine in India will be administered in two doses. Moderna is the fourth COVID-19 vaccine to receive approval.



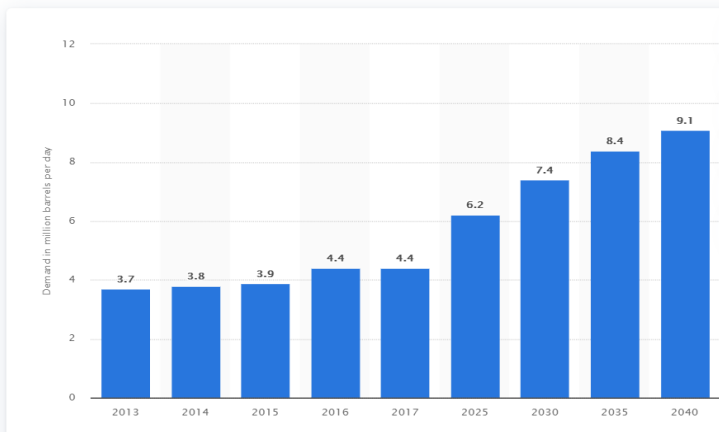
India's First Green Hydrogen Plant

In a world struggling to address the issue of climate change and growing carbon footprint, Green Hydrogen is considered as the future of energy.

Indian Oil Corporation Ltd. (IOCL) is prepared to build the nation’s first “Green Hydrogen” plant at its Mathura refinery.

India’s Fuel Demand

Oil demand in India from 2013 to 2040
(in million barrels per day)

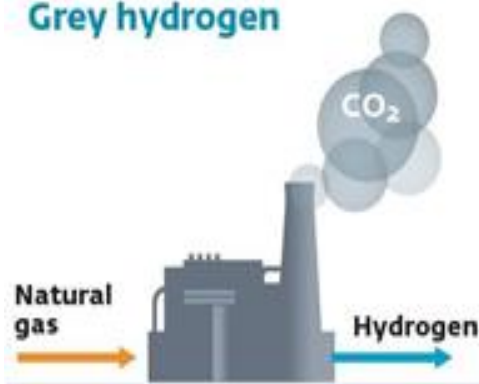


What is it?

“Green Hydrogen”- owing to its de-carbonizing potential and non-polluting nature, is seen as a promising alternative in replacing fossil fuels. Divergent from grey hydrogen (produced from fossil fuels) that causes significant CO₂ emissions, the production of green hydrogen employs a carbon neutral process known as “electrolysis”.

Smt Shubha T R

Grey hydrogen



Blue hydrogen



Underground storage



Green hydrogen



How is green hydrogen produced?



Clean energy generation

Hydro and wind are used to generate clean renewable energy

Add water

This energy is fed into the electrolyser with water



Green hydrogen production

The electrolyser splits the water molecules to create hydrogen and oxygen

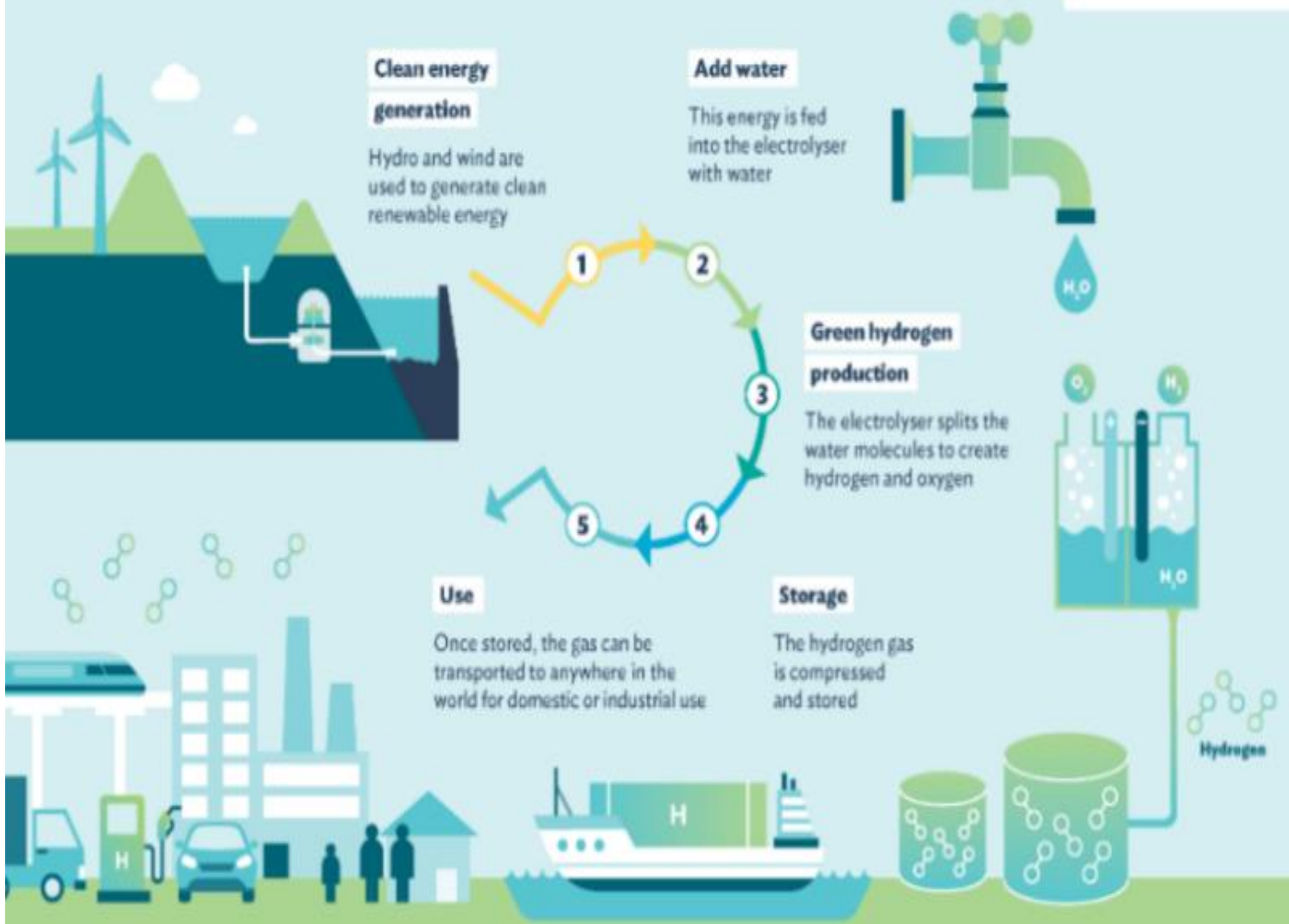


Use

Once stored, the gas can be transported to anywhere in the world for domestic or industrial use

Storage

The hydrogen gas is compressed and stored



Adoption of green hydrogen may offset the challenges faced by our country in terms of achieving the renewable energy targets under the Paris Agreement and enable in promoting sustainable development.

Highlights

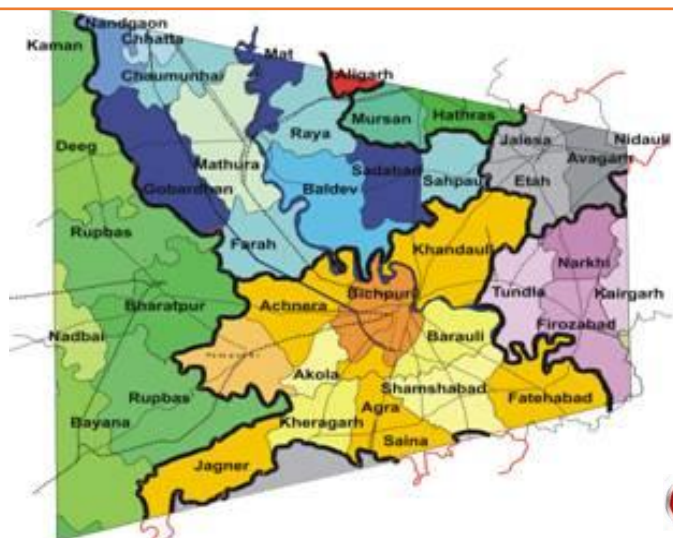
- ➔ IOCL has a wind power project in Rajasthan and intends to use the power for Mathura refinery.
- ➔ Green hydrogen can be a game changer for India, which imports 85% of oil and in meeting 53% of its gas demand.
- ➔ Mathura has been selected because of its proximity to **Taj Trapezium Zone (TTZ)**.

Do You Know?

Taj Trapezium Zone (TTZ) is a defined area of 10,400 sq km around the Taj Mahal to protect the monument from pollution. The TTZ comprises monuments including three world heritage sites - the Taj Mahal, Agra Fort and Fatehpur Sikri. TTZ is so named since it is located around the Taj Mahal and is shaped like a trapezoid. TTZ – covers 6 districts – Agra, Mathura, Ferozabad, Hathras, Etah and Bharatpur.

Do You Know?

- ➔ Almost 50 hybrid buses in Delhi are being fuelled by hydrogen-spiked compressed natural gas(H-CNG) with 18% hydrogen content, leading to lower emissions and contributing to eco-friendly transportation.



Lambda Variant

Ever since the outbreak of the Covid pandemic, the virus has been closely monitored and studied by the scientific community. This is important because viruses have the ability to undergo mutations that alter the ways they spread and infect the host and the complications they cause.

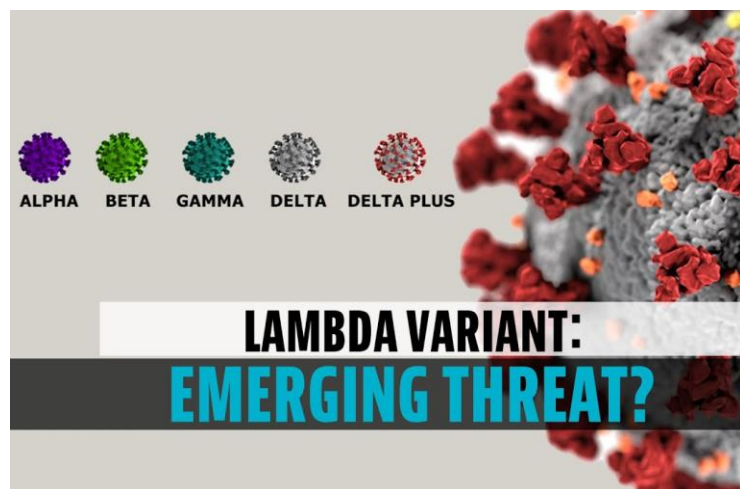
Even as the Delta Variant continues to cause fresh infections all over the world, another variant, Lambda, is an emerging threat.

The WHO designated the Lambda variant, previously known by its scientific name C.37, as the seventh and newest **‘Variant of Interest’** (something of concern).

Emergence

The Lambda is not new and has been around, possibly since August 2020.

Smt Nandhini S



It accounts for almost 80% of the infections in Peru (supposedly where it originated) and a dominant strain in neighbouring Chile.

But until recently, it was largely concentrated in a handful of South American countries including Ecuador and Argentina.

It accounts for almost 80% of the infections in Peru (supposedly where it originated) and a dominant strain in neighbouring Chile. But until recently, it was largely concentrated in a handful of South American countries including Ecuador and Argentina.

Since March end, this variant has been detected in more than 25 countries, although in small numbers.

Mutations

This variant has undergone at least 7 significant mutations in its spike proteins which means the virus now has increased transmissibility or its resistance to antibodies (i.e., you could still be susceptible despite vaccinations)

Research is on to ascertain the significance of the mutations and their impact.

How will this impact India?

Lambda so far has not been reported in India or neighbouring countries. In Asia, only Israel has reported this variant. But we cannot slacken. As these variants have the potential to bypass immunity gained by vaccinations, there can be fresh waves of infections. We, as responsible citizens, need to be very cautious and still adopt double masking, social distancing and travel only when absolutely necessary.

How WHO classified the variants

- ➔ Of the 7, Alpha, Beta, Gamma and Delta are the 'Variants of Concern' and are considered a bigger threat.
- ➔ The variants were all recently named after the letters of the Greek Alphabet in order to avoid the linkage with the country of their origin.



Odisha - Only State with 3 types of Crocodiles

Odisha has become the only state to have all three kinds of crocodile species in Mahanadi River - freshwater gharials, muggers and saltwater crocodiles. For the first time, 28 hatchlings of freshwater gharials were spotted in May 2021.

Gharials are a critically endangered species and were first introduced in Odisha rivers in 1975.

The originally introduced gharials are no longer alive. Over 40 years, 13 more gharials were added but only eight survived.

Measures Taken

1. Round-the-clock surveillance with drones and solar-powered CCTV cameras.
2. 50 forest officials patrolling and spreading awareness across 300 villages.
3. Restricted use of mechanised boats to avoid scaring the hatchlings.

Kum Priyadarshini S





GHARIALS

- Scientific name is *Gavialis gangeticus*.
- Their habitats are under threat due to encroachment and fishing nets.
- Are weaker than crocodiles and muggers.
- Lay eggs in shallow areas.
- Listed in Schedule 1 of the Wildlife (Protection) Act, 1972. (IANS)



MUGGERS

- Are medium-sized, broad-snouted freshwater crocodiles.
- Dig burrows to retreat when the temperature drops below 5 °C or exceeds 38 °C.
- Females dig holes in the sand and lay up to 46 eggs during the dry season. The gender of the hatchlings depends on the temperature during incubation.
- Listed as **Vulnerable** on the IUCN Red List since 1982.



SALT WATER CROCODILE

- Native to saltwater habitats and brackish wetlands from India's east coast across Southeast Asia.
- The largest living reptiles known; dangerous for those who share the same environment.
- Listed as **Least Concern** on the IUCN Red List since 1996.



Railways Development in North Eastern India Shri Mrithyunjay G N

The Indian Railways recently completed electrification of over 45,000 kilometres of track in north eastern India in an attempt to increase connectivity and improve the existing services.

Other railway projects have also been completed. A bridge across the Barak river as part of the Jiribam to Imphal line has been constructed successfully.

Automatic Coach washing plants have been installed in the Varanasi Division to improve the up-keep of the trains themselves.



- Belonia-Sabroom (39.12 Km) line in Tripura - easy access to Southern Tripura and Chattogram Port in Bangladesh
- 25.05 Km doubling of Hawaipur-Lumding Section of New Jalpaiguri-Lumding Project - Increased line capacity of trunk line

Manipur has now become a part of the Indian Railways system. The Rajdhani Express now goes to a station in Manipur's Tamenglong district from Assam - a major development in terms of connectivity. A complete railway line is expected to be finished by March 2022.

Stations across the area have been modernised and access to port cities have also been made easier through new railway lines. Projects have been sanctioned to build 2 bridges across the river Brahmaputra, namely the Saraighat Bridge and the Tezpur-Silghat Bridge.

These are just some of the projects taken up by the Indian Railways to bolster access to the eight states that make up north eastern India.

Bringing the NER to the mainstream

Expanding rail connectivity across north-eastern region is just one step in an effort to bringing it to the mainstream.

Since Indian independence, the North Eastern Region (NER) has lagged behind the rest of India in terms of economic and social development. To understand why, we will have to understand the general topography of the NER.

Reasons

This region is home to a group of people with a variety of cultures.

It is also a difficult terrain with many hills and valleys leading to pockets and clusters of developed areas among isolated villages and remote locations.

This diversity can also be seen in the sheer number of tribes that call the NER their home. **There are more than 15 tribes in Manipur** alone.

Because of its relative isolation, the NER has also been a ground for insurgents and other anti-social groups. These issues, compounded with illegal immigration from the countries that border this area have delayed development in this region.

However, in recent years, the Indian government has taken steps to address these issues. A prime example of this is the **Act-East Policy (2014)** to strengthen the economic development in the region.

The Act East Policy

This was made to focus on improving India's relations with the **Association of South East Asian Nations (ASEAN)**. This focus ensured that our relationships with our neighbouring nations is strengthened, and since they are closest to the NER, it will lead to development of the area too.

The importance of NER

The north-eastern states are important for many reasons. They connect the Indian markets with those of the south and south east Asia.

They can become catalysts for international trade relations only if they are sufficiently economically developed themselves.

They are also resource rich areas. Not just forests and minerals, but also in terms of culture and skilled labour.

Some of India's most famous athletes are from this region. World champion boxer **Mary Kom**, world class weight lifter **Saikhom Mirabai Chanu**, boxer **Lovlina Borgohain** and hockey players such as **Sushila Chanu, Shanglakpam Nilakanta and Lalremsiami**, all come from the NER. They represent the potential of the region. By bridging the gap between the NER and the mainland, the rich tapestry of Indian culture gets more diverse.

Development, One Project at a Time

The Ministry of Development of North Eastern Region is responsible for all the projects that the Indian government undertakes to integrate the NER.

One project undertaken by the ministry is the **Indradhanush Gas Grid, a 1656-kilometre gas pipeline** grid covering all the 8 states. This will provide clean and green fuel to the region with an aim to boost industrial growth.



- 1656 Km. North East Gas Pipeline Grid covering all eight States
- Clean and Green NE with use of cleaner fuel
- Boost to Industrial Growth with clean environment

Another important project is the connecting of NER National highways. At a cost of **7700 crores, over 536 kilometres of highways** will be constructed, connected and maintained to improve access to different regions.



- Awarded 35 Projects - Costing Rs.7707.17 Cr and 536 Km length
- Important Projects
 - 4 Laning of Imphal-Moreh - Pkg I (20 km)- Rs.762Cr - Connectivity for India-Myanmar -Thailand Trilateral Highway
 - Aizwal Tuipang Pkg -I (57 km)- Rs.678 Cr - to provide access to Kaladan MMT Project

Three projects have already been completed in the Arunachal Pradesh region, connecting Hunli to Anini, Singer River to Sizoh Nallah and Pasighat to Pangin.

The North East is also home to multiple inland waterways that are being developed to allow for movement of cargo from port cities like Kolkata to interior locations.

These will also make Indo-Bangladesh trade much easier.

The **Lower Subansiri Hydroelectric Power Project (LSHEP)** is located on the Subansiri river bordering Arunachal Pradesh and Assam.

Once completed in 2023, it will be the single largest hydroelectric powerplant in India, producing more than 2000 MW of electricity.

Additionally, the government is looking at air connectivity, highway building and agricultural development to increase the economic viability of the NER.

The 8 states of the NER are an invaluable part of India's unique cultural and economic identity.

These projects will ensure that the NER can achieve the same level of development that the rest of India has come to benefit from, thereby integrating what remained remote.



India's First Grain ATM

Smt Ramamani N

'Annapurti' is an initiative by the Indian government with **the United Nation's World Food Programme (WFP)**.

In order to address the complaints regarding the right measurement of ration quantity and waiting time, an ATM that dispenses grains is installed in Farrukhnagar at Gurugram, Haryana.

The Grain ATM is known as an Automated Multi Commodity, Grain Dispensing Machine. The machine will dispense three types of grain – **rice, millet and wheat**. The time taken for dispensing **70 kg of grains is 7 minutes**.

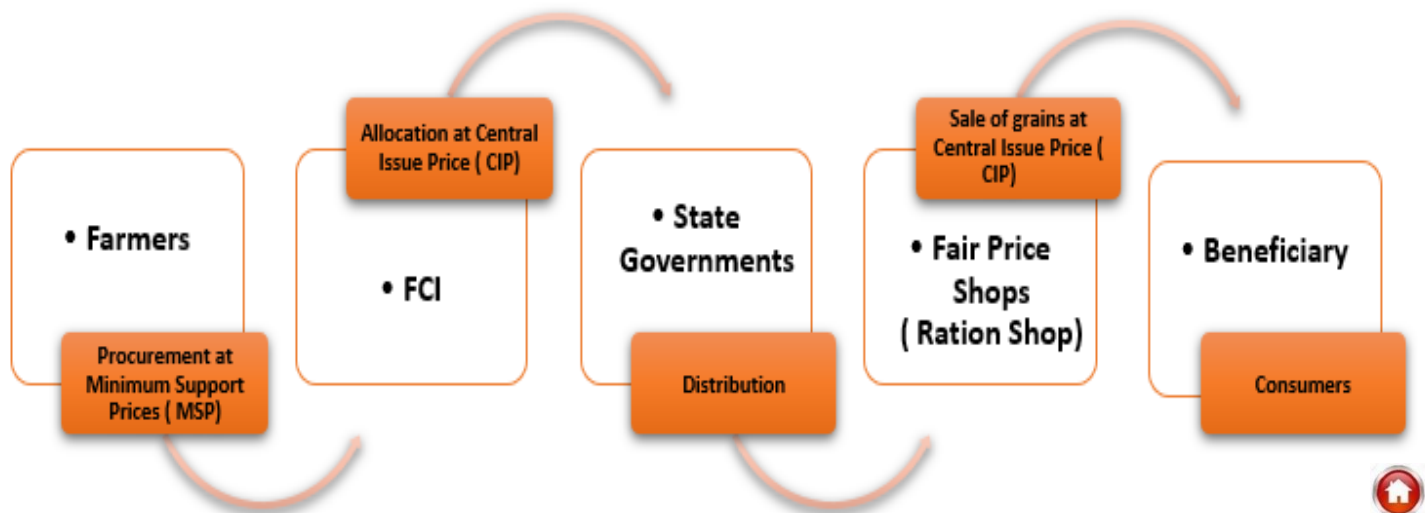


FEATURES

- ➔ Functions like a regular bank ATM (Automated Teller Machine).
- ➔ Installed with a biometric system and a touch screen.
- ➔ Beneficiaries must enter their Ration Card or Aadhar Card number.
- ➔ After authentication, the machine dispenses grains in the bags installed under the machine.



FOOD GRAINS- PUBLIC DISTRIBUTION SYSTEM



India's first Dolphin Research Centre

Smt Subha T R

Bihar is home to around half of the country's estimated 3,000 dolphin population. **National Dolphin Research Centre** (NDRC) - Asia's first, will be setup on the banks of river Ganga in Patna University campus to save the mammals.

Gangetic River Dolphins

- ➔ Covered under Schedule I of the Wildlife (Protection) Act, 1972. Classified as an **endangered** species by the International Union for Conservation of Nature (IUCN).
- ➔ Declared as India's National Aquatic Animal in 2009.
- ➔ Among the four freshwater dolphin species in the world; the other are found in Yangtze River, Indus River and the Amazon River.
- ➔ Important reliable indicators of the Ganges River ecosystem.

PROJECT DOLPHIN

PRESERVING OUR UNDERWATER FRIENDS

- 10-YEAR PROJECT TO FOCUS ON BOTH RIVER AND SEA DOLPHINS
- AIM TO STRENGTHEN BIODIVERSITY, CREATE EMPLOYMENT OPPORTUNITIES AND ATTRACT TOURISM
- KILLING, HABITAT FRAGMENTATION BY DAMS AND BARRAGES AND INDISCRIMINATE FISHING HAS REDUCED THE GANGES RIVER DOLPHIN POPULATION FROM TENS OF THOUSANDS TO AROUND 3,700 OVER THE LAST CENTURY
- GANGES RIVER DOLPHIN, A SPECIES OF FRESHWATER DOLPHINS, IS PRIMARILY FOUND IN GANGA AND BRAHMAPUTRA RIVERS, AND THEIR TRIBUTARIES IN INDIA, BANGLADESH AND NEPAL
- IN INDIA, THESE DOLPHINS ARE SIGHTED IN DEEP RIVERS IN ASSAM, BIHAR, JHARKHAND, MADHYA PRADESH, RAJASTHAN, UTTAR PRADESH AND WEST BENGAL
- GANGES RIVER DOLPHIN, OFFICIALLY DISCOVERED IN 1801, CAN LIVE ONLY IN FRESHWATER

Ganges River Dolphin

Aquatic mammal that is a subspecies of the South Asian river dolphin

GEOGRAPHIC RANGE

Primarily in the Ganga, Brahmaputra, Karnaphuli-Sangu river basins and their tributaries in India, Nepal, and Bangladesh



POPULATION approx. 3,500-4,000

Poor eyesight, almost blind — can only sense light/darkness

WEIGHT 150 -170 kg

Long, pointed beak with sharp, curving teeth visible even when beak is closed (esp. in younger animals)

Swim on their sides unlike other cetaceans

HABITAT

Slow-flowing, freshwater rivers mostly in the plains. Often sighted at river confluences.

LIFESPAN

18-22 years (in the wild)

AKA "susu" locally, because of the sound it produces when surfacing/ breathing

EAT Fish, shrimp, possibly turtles and birds

SOUND WAVES

Use echolocation (20-160 kilohertz range) to hunt/find food, avoid boats, and navigate through turbid/murky waters. Use high-frequency clicks to communicate with others.



Do You Know?

- ➔ **Vikramshila Gangetic Dolphin Sanctuary**, Bhagalpur - India's only dolphin sanctuary - spread over 50 km along the Ganges.
- ➔ The life span of the Ganges river dolphin is about 26 years.
- ➔ Official animal of Assam's capital - Guwahati
- ➔ **5th October** celebrated as "**Ganga River Dolphin Day**" across India.
- ➔ "Indus River Dolphin" is the aquatic animal of Punjab.

CURRENT STATUS



SCIENTIFIC CLASSIFICATION

Kingdom:	Animalia
Phylum:	Chordata
Class:	Mammalia
Order:	Artiodactyla
Infraorder:	Cetacea
Family:	Platanistidae
Genus:	Platanista
Species:	<i>P. gangetica</i>
Subspecies:	

- **Indus river dolphin:** *Platanista gangetica minor*
- **Ganges river dolphin:** *Platanista gangetica gangetica*

SPECIES SIZE

Weight 70-110kg, max length reported 2.4 meters

INS VIKRANT – Another Atmanirbhar Initiative

Shri Krishnakumar C S

India has been making sincere efforts in developing indigenous defence technology and production capabilities.

Air, land and water – all the three domains of our country are under threat from aggressive enemies and terrorists. So, an integrated defence strategy has been formulated.

Air craft carrier vessels play a major role in this effective strategy.

India's first Indigenous Aircraft Carrier (IAC) started its sea trials and is set to be commissioned into the Eastern Naval Command as **INS Vikrant** by mid-2022.

Designed by the Indian Navy's Directorate of Naval Design (DND), it is being built at Cochin Shipyard Limited (CSL).

Key Features

- ➔ Length - 262 m; width – 62 m.
- ➔ Has a STOBAR (short take-off but arrested recovery) configuration with a ski jump capability.
- ➔ Can carry 35-40 aircrafts – a mix of naval fighters, anti-submarine helicopters and naval UAVs.
- ➔ Can project air power over long distances, including air interdiction, anti-surface warfare, offensive and defensive counter-air, airborne anti-submarine warfare, and airborne early warning.
- ➔ Equipped with OTO Melara 76mm dual-purpose cannons and four AK-630 close-in weapon systems. Also carries Israeli Barak 1 missiles.



Vistadome Train

Shri Mrithyunjay GN

On 12th July 2021, seventy-seven passengers were the first to experience the Vistadome coaches of the train connecting Yesvantpur, Bangalore and Mangalore. Introduced by the South Western Railway Zone, the Vistadome coaches are specifically designed to provide passengers with a unique experience.

Each coach has large windows on the side and on the roof to provide a panoramic view while travelling through the lush forests of the picturesque Western Ghats.

The coaches are also equipped with state-of-the-art amenities and 180-degree rotating seats designed to give the passengers unhindered views of the greenery. The train has been running at full capacity showing the success of the initiative among the public.



The General Manager of South Western Railways Sri Gajanan Mallaya remarked on the success of the coaches and hoped that these coaches will boost railway tourism further.



INDRAJAAL – A Powerful Defence Shield

Shri Krishnakumar C S

The drone strike on the Indian Air Force base in Jammu and Kashmir on 27th July 2021 has been an awakening call for defence strategists all over the world. Two drones were used to drop improvised explosive devices (IED) next to the Mi-17 hangar. They were built for commercial purposes and used to cause an explosion. There were two explosions, one on the roof of a building and the other in an open area.

Drones are more formally known as unmanned aerial vehicles (UAVs) or unmanned aircraft systems (UASes).

Essentially, they are flying robots remotely controlled or through software-controlled flight plans in their embedded systems, working in conjunction with on-board sensors and GPS.

Drones have several positive uses. Unfortunately, they can also be used against civilian and military targets. Technology in the hands of terrorists can become a huge risk to the safety and security of the nation.



Things become worse when some nations share technology with groups motivated to disturb peace and safety in the neighbourhood. So, it is essential to develop defence systems to guard sensitive areas against possible attacks.

Traditional methods of defence have become outdated and fail to counter the deadly attacks.

The current air defence machinery cannot be used to defend against such low RPCs attacks.

Artificial intelligence, cybersecurity and robotics have become an integral part of defence strategy.

Hyderabad-based **Grene Robotics**, a firm working on defence operating systems for the last eight years, **has succeeded in designing and developing an indigenous autonomous drone defence dome called 'Indrajaal'.**

Basic features

- ➔ 100% indigenous.
- ➔ Capable of protecting 1000-2000 sq km against any kind of aerial threats ranging from UAVs to short-range missiles.
- ➔ A counter to the attack on J&K airbase on 27th June 2021.
- ➔ Beneficial for linear infrastructure, e.g., international borders against advanced weaponry.
- ➔ Uses over 10 different modern technologies to defend the airbase.
- ➔ Capable of acting in real-time situations.
- ➔ Capable of monitoring, tracking and defending 24/7.
- ➔ Weather- proof.



Components

- ➔ **Radar:** it can detect drones and other flying objects.
- ➔ **Weapon Control:** it controls all weapons and launches them on time.
- ➔ **Missile fire:** It is a missile-firing unit.



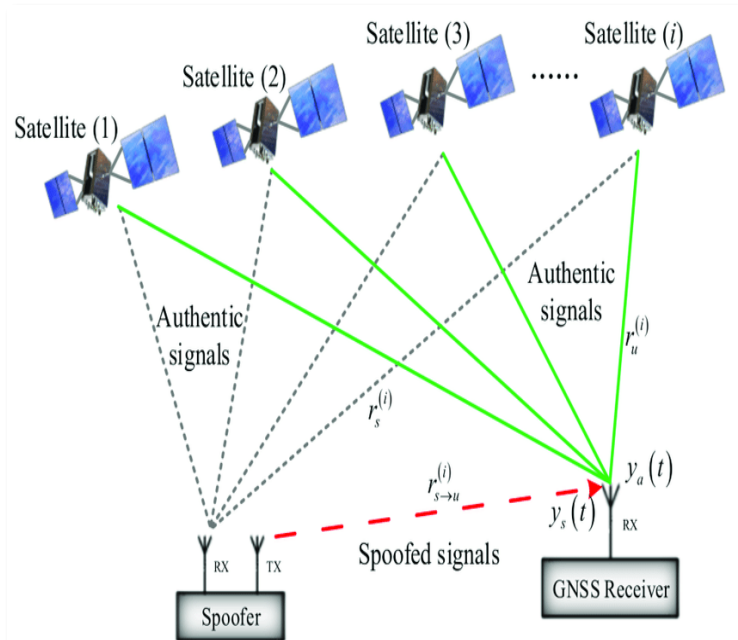
IAF to procure 10 Anti-Drone Systems

Smt Ramamani N

There was a drone attack at the **Indian Air Force (IAF)** station in Jammu on 27th June 2021, where two unmanned aerial vehicles were used to drop bombs post which, the force has decided to procure **ten anti-drone systems** to stop such attacks.

The IAF has floated a **Request for Information (RFI)** for Indian Vendors for **Counter Unarmed Aircraft System (CUAS)** that can be armed with laser directed energy weapons to bring down drones with dangerous effects.

The RFI stated that the CUAS would detect and neutralize hostile UAS.



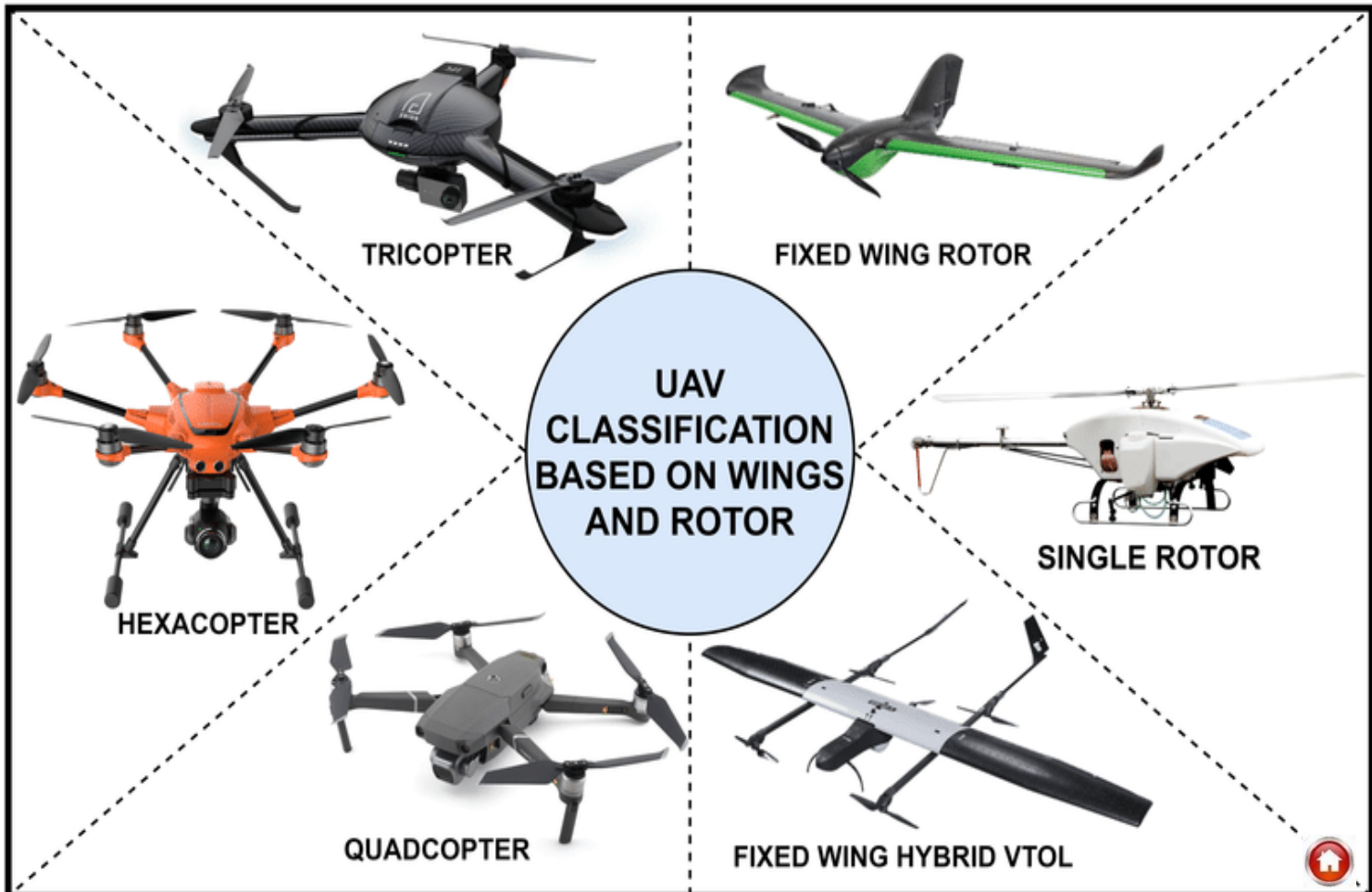
It mentioned that the systems should be equipped with **Global Navigation Satellite Jammer System** (GNSS) and Radio Frequency jammers as a soft kill option and **Laser-based Directed Energy Weapon** (Laser-DEW) as a hard kill option to destroy the drones.

"It should provide a multi-sensor, multi-kill solution to enforce effective no-fly zones for unmanned aircraft while inflicting minimal collateral damage to the surrounding environment. It should generate a composite air situational picture for the operator and generate alerts based on user-defined parameters," the RFI stated.

The Air Force stated that these anti-drone systems are required in mobile configuration mounted on indigenous vehicles with cross country capability and powered by indigenous Electrical Power Supply (EPS) system.

Do You Know?

- ➔ **Unmanned aircraft systems (UAS)** or unmanned aerial vehicles (UAV) are used to:
 - support firefighting, rescue operations
 - monitor and assess critical infrastructure
 - provide disaster relief
 - aid efforts to secure our borders
- ➔ **Global Navigation Satellite System (GNSS)** refers to a constellation of satellites providing signals from space that transmit data to the receivers.
- ➔ The **Directed-Energy Weapon (DEW)** is a weapon that can engage targets beyond physical reach and damages its target with highly focused energy like a laser.
- ➔ **Satellite jammer** is a **form of electronic anti-satellite (ASAT) attack** that interferes with communications travelling to and from a satellite by emitting noise of the same radio frequency within the field of view of the satellite's antennas.
- ➔ **Collateral damage** refers to unintended damage caused to the anything other than the target.



Afghanistan and the Taliban Conundrum Col M V Shashidhar (Retd)

On July 3, US forces evacuated the famous Bagram airbase, the key and the strongest base of the US counter-terrorism operations across Afghanistan for the past 20 years against **Al Qaeda (AQ)**, **Islamic State (ISIS)**, **Taliban** and other terrorist groups.

At the same time, the Taliban and all the terrorist organizations supporting it have also waged a very effective guerrilla war against the American Defence Forces, the **International Security Assistance Force (ISAF)** and the **Afghan National Defence & Security Forces (ANDSF)** of the Republic of Afghanistan.



There are four main reasons for the success of Taliban.

The **first** is the presence of snowy and dominating Hindukush and Pamir Mountain ranges of the eastern and north-eastern regions of Afghanistan. The rolling hills, rivers, streams along the foothills of the two mountain ranges in central highlands further assist the Taliban militants in waging an effective guerrilla warfare.

The **second** reason has been the synergy and cooperation by various terrorist groups operating in Afghanistan with Taliban.

The **third** is the strong support of Pakistan's intelligence agency ISI (Inter-Services Agency), especially the Haqqani network, which is an important component of the Taliban and there are some unconfirmed reports that suggest that the Haqqanis are overshadowing the Taliban.

The **fourth** is the gradual migration of American forces from Afghanistan; especially the abandonment of Bagram airbase, due to which the condition of the Afghan Defence Forces has become even more critical.

Afghan Taliban leaders

The Taliban is typically portrayed as driven by fundamentalist ideology and responsible for widespread violence. But to understand the group that is poised to return to power in Afghanistan, and what we might expect from its rule, we need a much more nuanced picture.

To start with, it's important to understand the Taliban's origins in the 1980s during the cold war. Afghan guerrillas called the Mujahedeen waged war against Soviet occupation for around a decade. They were funded and equipped by an array of external powers, including the US.

In 1989, the Soviets pulled out and that marked the beginning of the collapse of the Afghan government that had relied heavily on them. By 1992, a Mujahedeen government was formed but suffered from gory infighting in the capital.

This created a fertile ground for the emergence of the Taliban. An Islamic fundamentalist group dominated by those of Pashtun ethnicity, the Taliban is believed to have first appeared in Saudi Arabia-funded hard-line religious madrassas in northern Pakistan in the early 1990s.

Life under the Taliban

For the war-weary people of Afghanistan, the Taliban's promise of bringing security and order on the one hand and curbing corruption on the other was appealing.

But that was coupled with a high and sometimes unbearable cost: introduction of harsh punishments such as public executions, closing girls' schools (for age ten and above), banning television and blowing up historical Buddha statues, to name a few.

The group's justification stemmed from the blending of a fundamentalist understanding of Islam with Afghan traditions.

During the peak of the Taliban rule (1999), not a single girl was enrolled in a secondary school and merely 4% of those eligible (9,000) were at primary schools. Now around 3.5 million girls are in school.

After the US-led invasion of the country following the Taliban's refusal to hand over those behind the 9/11 terrorist attacks in 2001, many of the Taliban's senior figures evaded capture and reportedly took refuge in Quetta in Pakistan.

Later, this led to the formation of the "Quetta Shura" — the Taliban leadership council that guides the insurgency in Afghanistan.

The short-lived euphoria after the invasion came to an end when the Taliban remobilised in 2004 and started an insurgency against the new Afghan government and supporting foreign troops, **costing the lives of at least 170,000 people, including 51,613 civilians to date.**

In 2021, the insurgent group has an estimated 75,000 fighters and its insurgency machinery runs on foreign funding (from governments and private donors) as well as local level taxation, extortion and illicit drug economy.

There are multiple possible explanations for the Taliban's resurgence, including the lack of a post-intervention strategy, the adverse effects of the foreign military campaign, a corrupt and incompetent government in Kabul, and a growing dependency on foreign financial and military assistance and regional rivalries. Now the US has made a deal with the Taliban and is withdrawing from the country.

This poses an existential threat to the fragile post-2001 political order, which has been largely shaped, funded and defended by the foreign money and boots on the ground.

What lies ahead?

The US-Taliban deal created some optimism about a likelihood of a political settlement that could end the prolonged war and reduce the likelihood of Afghanistan becoming a safe haven for terrorists once again.

But the peace efforts seem to have lost their momentum after the unconditional US troop withdrawal.

Now the Taliban seems to have rolled up its sleeves to reimpose its regime "forced into exile" in late 2001. Estimates say the group controls more than half of Afghanistan's 400 districts, in contrast to their own claim of controlling 85%.

However, the US has warned that it won't recognise a Taliban regime in Kabul as a result of military takeover.

But this alone seems unlikely to deter the Taliban from attempting to capture the capital, regardless of its likelihood. If the group succeeds in it, it remains unknown how it will fund its exclusive, theocratic regime. Interestingly, the Taliban has improved its ties with the nearby countries, such as Iran, Russia and some central Asian states, that once opposed the regime in the 1990s.

The group is probably aiming to find a regional alternative to the aid of the US and its allies, as well as preventing the resurgence of the anti-Taliban resistance force the Northern Alliance that would otherwise enjoy financial and military support of those countries.

When it comes to women's rights, press freedom, elections and other liberties guaranteed in 2004 constitution (at least, in written form), the Taliban have often said it wants a "genuine Islamic system" that aligns with the Afghan tradition, but it is unclear what exactly that means, and how different it would be from their previous rule (1996-2001).

The Taliban has recently said it would provide facilities for women to work and be educated, despite its actions in the late 1990s. In spite of this apparent shift, it appears to be still creating a society based on its strict interpretations of Islam, something that the young, urban Afghans fear. They worry that they could no longer share a school or workplace due to segregation by gender, go out to dine with their friends of the opposite gender or wear whatever they want.

A military takeover by the Taliban may also not mark the end of war in Afghanistan. **Peace and stability in multi-ethnic and diverse societies can only be ensured through coexistence, consensus and inclusion – not dominance and zero-sum politics.**

The diverging interests of the region's countries could fuel the growing local discontent against the Taliban (as experienced in the late 1990s), which, in turn, would perpetuate the destructive war.

Possibility of UN Intervention

There could also be a scenario where due to the military assistance from friendly countries in the form of economic, military and intelligence support, the current government is able to ward off the takeover of Afghanistan by Taliban leading to a situation of stalemate. This may then start a demand in the international community to seek UN intervention.

India's Options

The rapidly deteriorating situation is pointing towards a fierce civil war, reminding us of the 1990s. The future of Afghanistan looks unpredictable and bleak. In such a situation, India has very limited options left.

First, it would be in our national security interest to prevent the Taliban from taking over Afghanistan as the dominant component of any future ruling dispensation. A government of National Reconciliation is the only viable and peaceful way forward. In order to ensure this, we need to provide all possible military assistance to the current Afghan government in collaboration with friendly countries with similar ideologies.

The second step would be to prevent Russia and Iran from joining the China - Pak - Taliban ruled Afghan polarization. Diplomatic manoeuvres will therefore play an important role in achieving this. India will have to strengthen its hold on Chabahar and Jask ports to prevent the ever-increasing influence of China into Iran.

Limited Choices

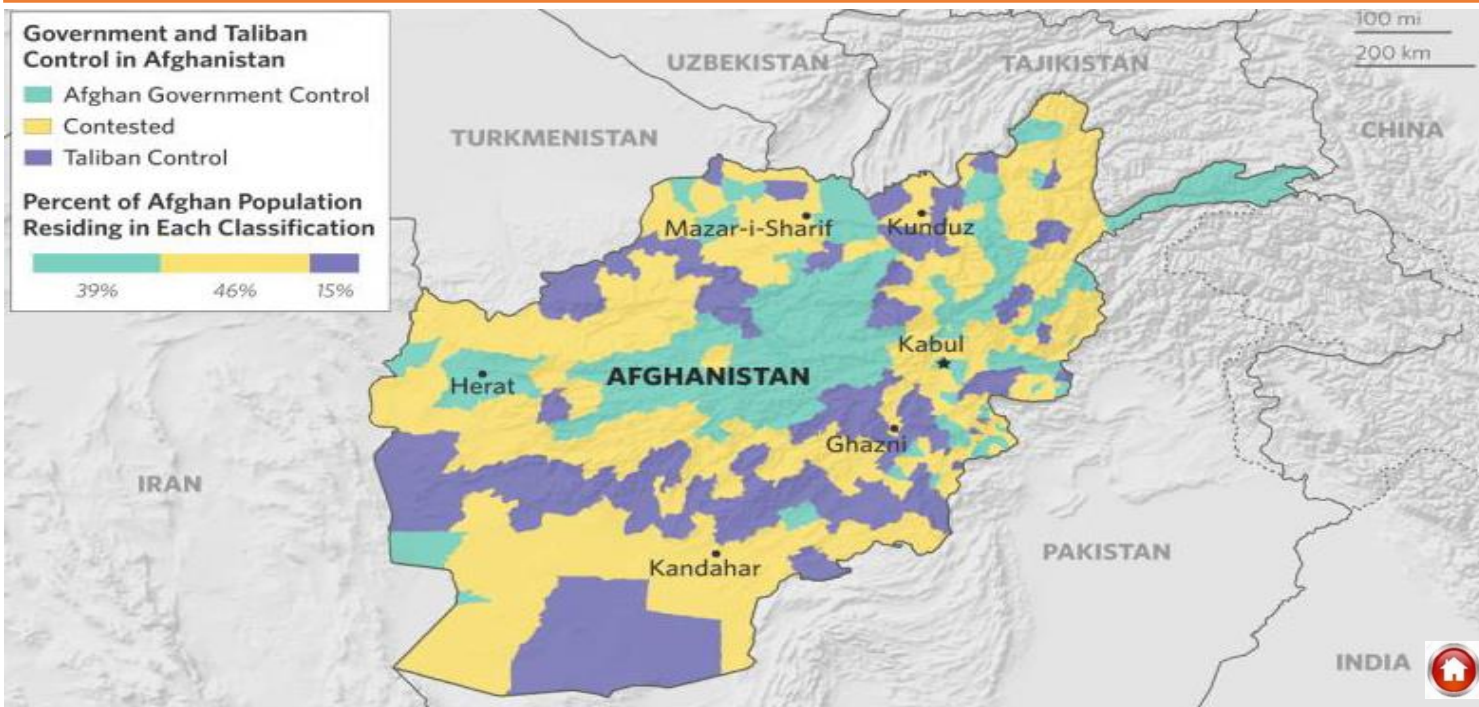
Indian stakes in Afghanistan are not existential. India has a special connect with Afghanistan. From building the Bamiyan Buddhist statues and withstanding military campaign after campaigns of Mohd of Ghazni and Ghori, till recently its President – His Excellency Dr Hamid Karzai who studied in Shimla for his M.A. in Political History.

The necessity is more due to geography as also the China-Pakistan adversarial collusion with scope to exploit the violent jihadist elements in Afghanistan to cause an internal instability in India. A stable and aligned Afghanistan is a must to leverage geo-political and economic gains. India is unique because it is the only country that can engage with the US, EU and China, Russia and Iran with its diplomatic outlook besides sharing a relationship of trust with Afghanistan, necessary to safeguard our strategic interests.

Flash News

As on 18th August 2021

- ➔ Afghanistan has come under Taliban control.
- ➔ Taliban has declared: “Nobody is going to harm you.”
- ➔ Women will be allowed to work, study, join the government – but within the norms of Islamic law.
- ➔ Details of the new government would be released in a day or two.
- ➔ Erstwhile President Ashraf Ghani has fled the country.
- ➔ India has evacuated all its embassy staff from Kabul.



Extreme Weather Events

Shri P Sridhar

Extreme weather events are making headlines regularly- heat wave in one place, floods in many others and so on, getting the attention of concerned citizens the world over. Thanks to the concerted effort of research organizations and world media, global warming has moved centre stage. A scientific pursuit a few decades back has become a global movement.

Connected dots

Life threatening events like prolonged drought, destructive hurricanes excessive rainfall, floods, extreme cold weather or snowfall stay fresh and green in people’s memory for many years.

In contrast the effect of global warming is more subtle, requires some hard data points.

Very convincing, irrefutable scientific data is now available which connects the dots of global warming and extreme weather events.

Global Warming

The earth has undergone several periods of warming and cooling. Global warming as a subject now refers to manmade global warming. Global warming occurs due to excessive build-up of greenhouse gases like Carbon di oxide(primarily), methane, water vapour and chlorofluorocarbons (CFC). **These greenhouse gases allow long wave length solar radiation to enter earth’s atmosphere and prevent the short wavelength radiation from going back, thereby heating up earth’s atmosphere.**

GLOBAL WARMING

GREENHOUSE EFFECT

CO₂ and other gases in the atmosphere trap heat, keeping the Earth warm

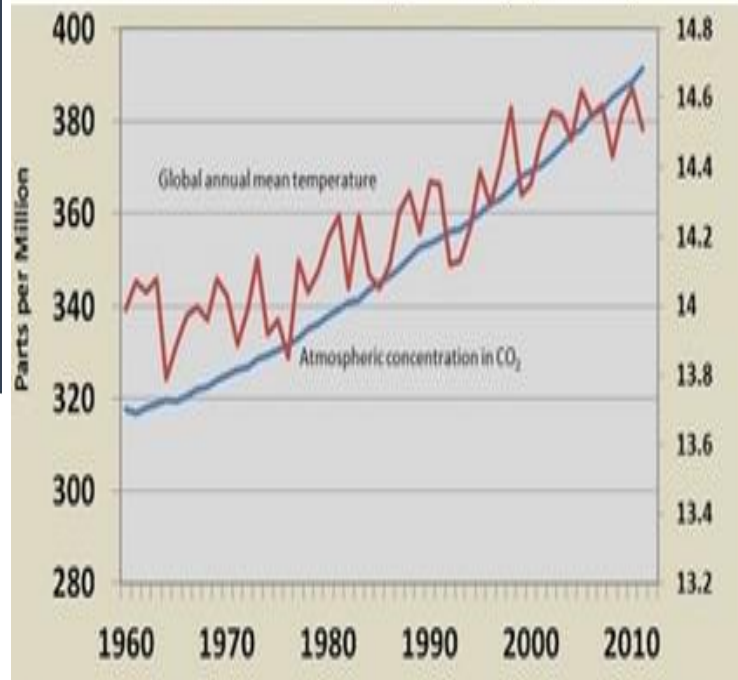


Scientific proof

CO₂ concentrations during the preindustrial era was 250 parts per million (PPM), now we have crossed 400 PPM.

Air samples tested from trapped air bubbles from the arctic shows that during ice age CO₂ concentration was 180PPM.

Atmospheric concentrations in Carbon Dioxide and Temperature (1960-2011)



That's how CO₂ levels in the atmosphere and global mean temperature has gone up.

The build-up of greenhouse gases in our atmosphere is perhaps the BIGGEST scientific experiment because no one knows what the global impact will be, yet.

Is global warming irreversible?

Looks like yes and experts say we are well past the tipping point.

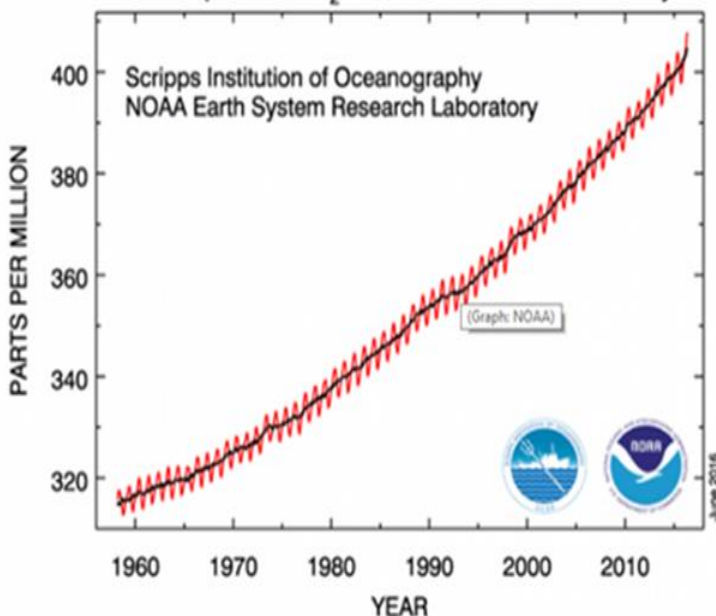
Albedo Effect

Albedo effect is a scientific term for the **reflectivity of a surface. Smooth surfaces, light coloured surfaces have more albedo values than rough and dark coloured surfaces.**

Fresh snow reflects almost 90% of the sunlight and there lies the catch. Scientists have determined that arctic ice has vast quantities of methane trapped in ice cubicles as methane hydrates.

Now global warming is responsible for the thinning of arctic ice. This may release methane....a potent greenhouse gas.

Atmospheric CO₂ at Mauna Loa Observatory



In the past 50 years, mean global temperature has gone up by 0.8 degree Celsius.

Ever since temperature records are available, 16 of the 17 warmest years were after the year 2000.

More snowmelt, more methane into the atmosphere and more warming - that is a vicious cycle.

Man-made global warming has got a short past but long future.

International agencies, governments have pledged to limit carbon emissions at 1990 levels, starting with Kyoto Protocol.

Many years have passed but outcomes are few and disappointing.

Influence of oceans on extreme weather

We know the oceans cover 71% of the earth's surface and have tremendous influence on world climate. Global warming puts more water vapour (a potent greenhouse gas) into the atmosphere.

A warming ocean is high in energy and transfers that into the atmosphere. Thus, the intensity and frequency of cyclones goes up.

The **intergovernmental panel on climate change (IPCC)** says that **since 1970 the number of Category 4 and 5 hurricanes have doubled, less intensity ones have gone up 5 times.** Hurricane Katrina that devastated New Orleans brought this to sharp focus.

Very recently central regions of China saw a year's rainfall dumped in 24 hours; similarly, in Germany, Belgium and Netherlands.

This kind of episodic rainfall is going up. Germany and China have never seen such high intensity rainfall ever since records are available.

Extreme heat

Extreme heat, wild fires, drought and distress are nothing new. Enough data is now available to prove that the number and scale of wild fires have gone up significantly.

Australia and California have seen the worst wild fires in recent memory. Siberia experienced wild fires a few years back. Something unthinkable. Western parts of Canada have seen temperatures touch 45° C- desert like heat for 10 days.

Global climate is extremely complex with wind patterns, ocean heat, cloud cover transpiration from water bodies, axis of the earth etc. Scientists have pooled all data and showed that manmade global warming is responsible for extreme weather.

Extreme Weather and unmanageable threats

Extreme weather was always there as a consequence of natural climatic cycles.

But then 200 years back the world population was less than a billion. Today we are 7.5 billion and more, with huge infrastructure.

Any powerful hurricane anywhere, tens of thousands of people risk losing their lives and property.

Some threats are dramatic like wild fires, floods, extreme heat, heavy snowfall extreme cold, hail stones, drought etc., which make immediate headlines and some action is seen.

Many threats due to global warming and consequence of extreme weather are insidious.

Desertification is one. Deserts are expanding at the rate of 5800 square miles a year in Sub Sahara, endangering lives and livelihoods. India loses precious topsoil every year and 50% of cultivable land is in several stages of degradation.

The degradation of soils, falling water tables, loss of agricultural incomes, migration to urban areas are unseen costs of extreme weather.

Can something be done?

Of course, yes but it takes more than NGOs and concerned governments.

Ultimately, it's the people's movement which can pull us out of this precipice. How well useful information reaches each one of us is the big question.

Science can bring insight and awareness but for quality change, it has to navigate several odds to become a people's movement and that's the way it should be.



How important is our privacy? Is our personal information and communication truly safe?

These are the questions that arise when discussing the PEGASUS spyware.

What is PEGASUS?

Developed by the NSO group, PEGASUS is a spyware which is capable of reading messages, recording calls and tracking locations from a person's phone without their knowledge. PEGASUS falls under the umbrella of software that are used in cyberwarfare.

How does it work?

PEGASUS uses errors in software to worm its way into victims' smartphones thereby allowing their personal information and communication to be tracked and spied on.

Normally these errors are detected by the manufacturers and fixed through updates, but PEGASUS and NSO group find new errors and exploits these. A phone affected with PEGASUS will send any and all information stored on it to the hacker thereby removing any sense of privacy of the individual affected.

What is its intended use?

NSO group claims that they sell the software to governments only for legitimate purposes such as the identification and surveillance of "serious crimes and terrorism" and other threats to the nation; recent journalistic investigations have revealed that this software has been used for far worse reasons.

Project PEGASUS

It is an international investigative journalism initiative that revealed how governments and antisocial elements spied on journalists, whistle-blowers, opposition parties, political activists and business people using PEGASUS.



It revealed how organizations and governments stifled the freedom of the press and silence democratic opposition instead of using it to address genuine threats to the nation and the people. To understand more, we need to know the most prominent targets of PEGASUS.

Investigative Journalists and Whistle-blowers

Investigative Journalists are reporters and writers who deeply research and investigate serious crimes such as corruption, corporate wrongdoing and human rights violations. Josy Joseph, one of India's most renowned investigative journalists is known for exposing corruption during the 2010 Commonwealth games and exposing the 2011 2G scandal surrounding India's telecom industry.

Whistle-blowers are people who come forward, risking their jobs and livelihoods, to expose illegal activities occurring within organizations or governments that they work in.

Some of the most famous whistle-blowers in recent history are Edward Snowden, who exposed how the US Government was spying on its own people; and Katherine Gun, a British government worker who leaked information about the 2003 invasion of Iraq.

Because of the nature of their work and their reporting, whistle-blowers and journalists are in danger. They may be targeted by people or organizations who do not want crimes or corruption to be revealed.

PEGASUS and NSO group have been accused of giving governments and criminal organizations access to their software that directly led to the spying on these journalists and whistle-blowers, thereby threatening their lives.

Cases of PEGASUS being misused

Jamal Khashoggi, a Saudi Arabian journalist who wrote about the oppressive Saudi regime and the corruption of the Saudi King Salman and the Crown Prince Mohammed Bin Salman, faced political persecution for his writings against the Saudi government.

He was assassinated in the Saudi consulate in Istanbul. Following a month-long investigation, it was revealed that the killing was ordered by Prince Mohammed Bin Salman. It was also revealed that PEGASUS was used to spy on Khashoggi, determine his personal whereabouts and also intercept his personal communication. This is an example of misuse of the software.

Use by the Indian Government

Claims have been made that PEGASUS was used by the Indian government to intercept private text communications, phone calls and personal details of journalists, activists, lawyers and politicians.

A Parliamentary Committee on Information Technology was created to investigate these claims.

There have been reports that multiple phones have been successfully hacked using PEGASUS.

Use by the Mexican Drug Cartels

The Drug cartels of Mexico are criminal drug trafficking organization. The Mexican government itself has been found to have a corrupt relationship with these cartels.

The cartel members are granted illegal protection by corrupt government officials in exchange for the profits from the drug sales.

It was revealed that PEGASUS was used to spy on, target and intimidate journalists who were gathering information to expose the corruption of the Mexican government.

Their personal information was stolen and they were tracked using the software and they were then further intimidated into not exposing the extent of the corruption.

This specifically goes against the intended use of PEGASUS.

Project PEGASUS has revealed that over 50000 phone numbers of journalists, activists, politicians and bureaucrats were possible targets.

The Implications of PEGASUS

“The path to hell is paved with good intentions.”

PEGASUS by itself is just a tool. The true implications are only based on what it is used for.

The intended use of PEGASUS was to identify, perform surveillance on and capture criminals and terrorists.

It was created with the aim of protecting the people. But PEGASUS itself has been used infringe on the privacy of the people it claims to protect.

As free citizens we have the right to privacy but persons with criminal intentions or authoritarian governments can misuse software like PEGASUS to infringe on personal freedom and rights to their own advantage.

Because of the nature of the software itself, no information on a device infected with PEGASUS is safe.

This information can be stolen and used for personal gain or to intimidate and blackmail victims.

PEGASUS reveals how dependent we are on our phones and how much information we have stored on it. It also reveals how vulnerable one can be to potential hackers.

A fact that most generally overlook is that every smartphone user is vulnerable and does not actually enjoy privacy beyond a point.

For example, the GPS feature easily reveals our location. So long as one is on the right side of law, one is relatively safer.

How do we protect against PEGASUS?

While PEGASUS itself exploits the errors present in the software, thus making it difficult to protect against, it is possible to prevent other such malware or spyware attacks by being diligent in the way we use our phones.

1. **Keep your phone and apps up to date to have the latest security features.**
2. **Always make sure your passwords are strong and lengthy. Use phrases, symbols and numbers.**
3. **Do not click on suspicious links shared through the internet or through WhatsApp.**
4. **Use open-source alternatives for apps. For e.g, Signal is an open-source alternative to WhatsApp. Proton Mail is an open-source**

5. Be careful about sites to which you provide your personal information.

These are just some of the ways we can protect our devices from being infected with malware and spyware and keep our information safe.

In conclusion, Project PEGASUS revealed how a useful tool can be misused for selfish reasons. Additionally, it reveals our own vulnerability in a fast-changing modern world.

Large scale changes with regards to the laws governing surveillance and privacy are required to control the potential risks.

Do You Know?

- ➔ The first computer virus, called **Elk Cloner**, was discovered on a Mac in 1982.
- ➔ In 1986, the first PC-based malware, known as **Brain**, was released. Brain was written by Amjad Farooq Alvi and Basit Farooq Alvi, who had written it to protect their medical software from illegal copying, and it was supposed to target copyright infringement only.



PEW Research on Religion in India

Shri Bharath S

A few weeks back, the Pew Research Center released a survey report titled “Religion In India - Tolerance and Segregation.” This caught the attention of all, but did not have the normal traction that one would witness when anything is said by a foreign agency on India.

There were cursory discussions and headlines on this and the media moved quickly to other topics of ‘interest.’

ABOUT THE PEW RESEARCH CENTRE

The official website of the Pew Research center, a part of the Pew charitable trusts, states that it is a “Nonpartisan fact tank that informs the public about the issues, attitudes and trends shaping the world. We conduct public opinion polling. . . We do not take policy positions”. The current report has brought out many interesting and important aspects of religion in India.

However, given the complexity and diversity in India, one might have apprehensions about the adequacy of the sample size of 29,999.

These were face-to-face interviews, conducted in 17 languages. But as a professional research body, the Margin of Sampling Error (MoSE) has been clearly indicated in the methodology.

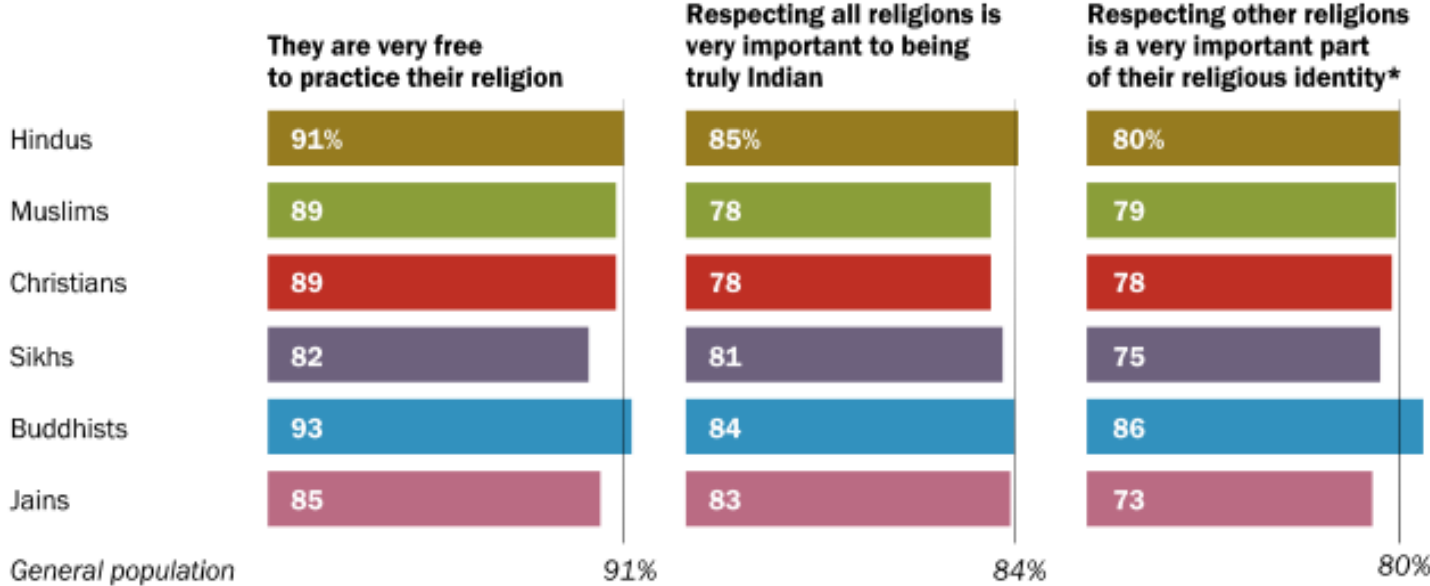
The survey covers the topics of religious freedom, discrimination, communal relations, beliefs, caste discrimination, inter-caste marriages, religious conversions and a whole range of other issues. A detailed study of the report, throws up some important and interesting aspects.

CULTURAL NATIONALISM:

An overwhelming section of the Indians cutting across religions feel they have religious freedom and are free to practice their religion. They also treat respecting all religions as a core value.

Indians feel they have religious freedom, see respecting all religions as a core value

% of Indian adults who say ...



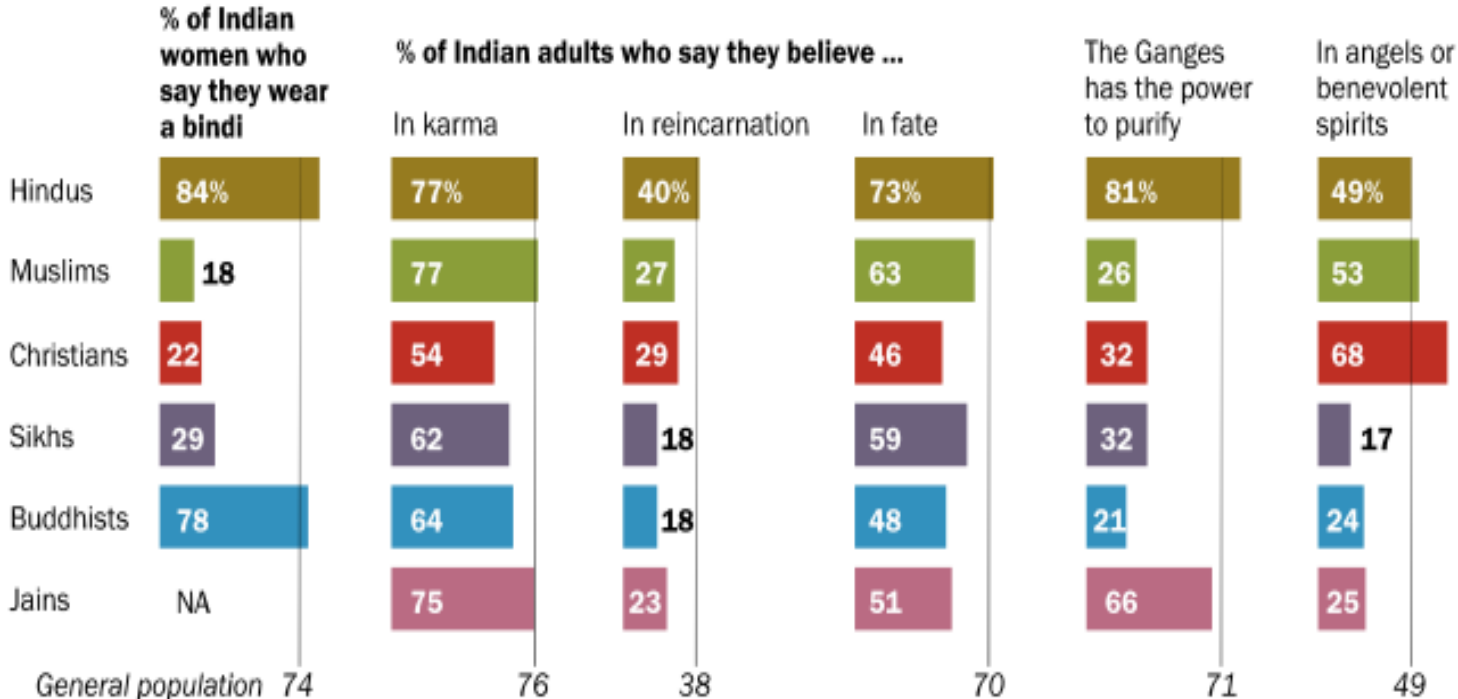
Majority among every religious group feels that the diversity in India benefits the nation while a sizeable section in every religion also feels it hurts.

The report brings out the commonality of approach of all religious groups on many practices, like life's milestones being marked by religious ceremonies, like Deepavali, Eid and

Christmas being celebrated by sizeable sections of people belonging to other faiths, respecting elders, wearing the *Bindi*, believing in *Karma* and reincarnation, and many more.

The river Ganges is believed to be holy by 26% Muslims and 32% Christians apart from 81% Hindus.

Some religious beliefs and practices shared across religious groups in India



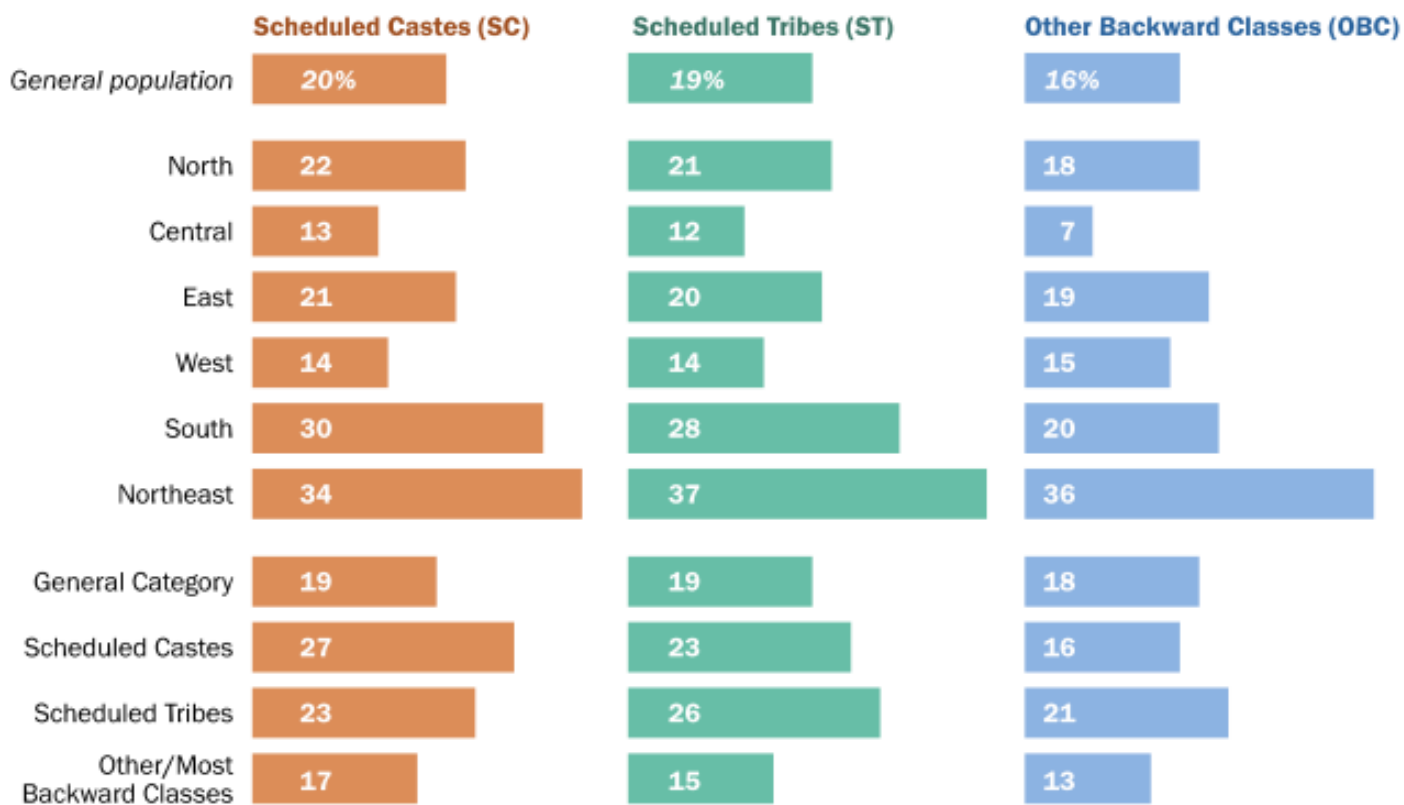
Over 20% of Muslims and Christians also feel that there can be multiple gods and 85% of the Muslims feel that Indian culture is superior.

On point after point, the survey reinforces the congruence of approach arising out of the cultural unity of the various religions. Many nationalists in this country have always felt that the term Hindu has a geo-cultural connotation and not a religious one.

They have always subscribed to the view that India comprises of Hindus with various streams of worship including Islam and Christianity. This survey has confirmed this. This inclusive ideology had been derided and denigrated as exclusivist by the opinion makers, intelligentsia and a large section of the Indian media. Stereotypes of exclusivism were promoted, thereby dividing the society.

Relatively few in India see widespread caste discrimination; perceptions vary by region

% of Indian adults who say there is a lot of discrimination against _____ in India today



Religious groups show little change in size due to conversion

% of Adults who were / are

	Raised	Currently
Hindu	81.6%	81.7%
Muslim	11.2%	11.2%
Christian	2.3%	2.6%
Sikh	2.3%	2.3%
Buddhist	1.7%	1.7%
Jain	0.3%	0.2%
Other Religions	0.5%	0.2%
No Religion	0.1%	0.0%

Hindus gain as many people as they lose through religious switching

% of Adults who were / are

	Raised as something else but now identify as _____ (i.e., entering)	Raised _____ now identify as something else (i.e., leaving)
Hindu	0.8%	0.7%
Muslim	0.3%	0.3%
Christian	0.4%	0.1%
Sikh	0.1%	0.1%
Buddhist	0.1%	0.1%
Jain	0.0%	0.1%
Other Religions	0.0%	0.3%
No Religion	0.0%	0.1%

In today's India, mere opinions and edits of foreign magazines and newspapers that are negative about India, are discussed and peddled beyond proportions. Out of desperation, the elite has lost the faculties to discriminate between the country, the Government and the ruling party.

To them, a celebration of India is a celebration of the Government and the ruling party and hence to be avoided.

An attack on the country is an attack on the party in power and hence welcome. Many pet narratives, including the "threat to religious freedom" have been demolished by this report.

One is only reminded of Bharathiya's verse:

"Nenju porukkudhillaye indha nilaiketta manidharai ninaindu vital".



Ivermectin – Wonder drug of the Pandemic?

Smt Vijaya Viswanathan

24th July was "World Ivermectin Day"- a day to bring awareness to an off-patent, well-known drug called Ivermectin, in the war against the pandemic. Ivermectin is inexpensive because it is not patented and so safe that it is on the WHO's basket of essential medicines, with over 400 crore prescriptions worldwide.

A group of frontline doctors in the US have established protocols on a website called FLCCC.net. The FLCCC researchers and doctors collect data from other world's frontline doctors and prepare protocols to treat Covid early in order to prevent hospitalizations.

The WHO and other health agencies do not recommend Ivermectin. The issue has become a political one. If alternate treatments like Ivermectin exist, vaccine companies cannot get emergency use authorization (EUA) for the vaccine roll out.

Without EUA, the pharma companies stand to lose a lot of money and automatically become liable for any adverse effects from the jabs. The EUA grants them immunity from liability.

The ground realities are however very different. Many physicians on the front lines fighting SAR-CoV 2 all over the world are seeing Ivermectin work well on Covid infected patients, if they are treated early.

The BIRD group is a group of researchers in the UK, whose research shows that Ivermectin works (For more information: <https://bird-group.org/>).



Data from Mexico, Venezuela and Uttar Pradesh clearly show that Ivermectin, when given at the onset of infection, prevents hospitalization lowering mortality and morbidity.

In India, Ivermectin also made it into the AIIMS protocol but there is tremendous pressure from the WHO to remove Ivermectin from Indian protocols for treating COVID.

In conclusion, the Covid crisis has become a political issue with misinformation about treatments from vested interests. Experts agree on one thing - it is important to treat Covid the minute we see symptoms. Even small delays in treatment can cost us lives. Ivermectin's safety profile makes it a drug worth considering for children as well.

For information on how to use Ivermectin and access protocols to give your personal physician:

<https://covid19criticalcare.com/covid-19-protocols/>



- The English language does not have a script of its own. It has the Roman Script.
- A new English word is created every 98 minutes. **That's 14.7 words per day!**
- TIME is the most commonly used noun in the world.
- The dot on top of i and j is called **'tittle.'**
- Every year a thousand words are added to the Oxford English Dictionary.
- The latest edition of Oxford Advanced Learner's Dictionary features 26 new INDIAN words. Here are a few: Aadhaar, chawl, dabba, hartal, shaadi , bus stand, deemed university, non-veg, tube light and videograph

- The word with the highest number of definitions in the dictionary— "set".
- The word girl was once gender neutral. It used to mean 'child' or young person'.

The English language is full of contranymy.

Contranymy are words that have **two opposite meanings**.

For example, the word clips means both to attach each other and to cut apart.

- He clipped the answer sheets together.
- Clip this part from the newspaper.

Weather is another one, which can mean wear away or to withstand.

- Rock is weathered by the action of water.
- The company weathered the crisis well.

English has one of the hardest grammar rules.

SOME COMMONLY MISUNDERSTOOD WORDS IN ENGLISH



You think it mean

☆☆☆



It means

☆☆☆

1. ENORMITY	
enormous in size (enormousness)	monstrous evil, excessive wickedness, outrageousness
2. NONPLUSSED	
unaffected, unimpressed	bewildered, extremely puzzled, at a loss
3. BEMUSED	
mildly amused	to be bewildered, confused, engrossed in thought
4. REDUNDANT	
"useless" or "unable to perform its function"	beyond what is necessary or natural, needlessly wordy or repetitive
5. PLETHORA	
to have a lot of something, many	superabundance, an excess (has transitioned from a negative to positive connotation over time)

Financial Literacy

Responsible Borrowing

Smt Vanaja Shankar

“Gita, can you lend me ₹ 4000.” Shravan smiled at his sister. “I know you have saved ₹4500 in your bank account. You are my angel.”

Gita’s eyes widened.

“₹4000?” What for? How will you return the money? If you need something, you must ask Dad.”

Shravan’s face well. “Why do you ask so many questions? I am asking you because Dad will say “NO”. I will return it in a month.”

“Shravan, she is right.”

Grandpa put his arm around Shravan and sat him down. “You must learn the discipline of responsible borrowing. **Ask yourself these questions before you borrow money.**”

- 1. Do I really need this money or is it to satisfy some want?**
- 2. How will I be able to repay the money?**
- 3. How can I maintain the trust and relationship with the lender?**

“Now. Why do you want to borrow ₹ 4000?”

Shravan lowered his eyes. “My new friend Akhil has invited me to his birthday party on a cruise ship. I want to buy new clothes and shoes for myself. I also have to buy him a grand gift.”

Grandpa shook his head. “Is this a need or a want?”

Shravan was quiet for some time. “I admire him. I want to be his best friend.”

“Hmm. How will you repay Gita?”

“Out of my pocket money. Over the next few months.”

“If you pay all your pocket money, you can’t even buy snacks, forget about gifts. If you don’t repay, Gita will feel you have cheated her. She will never trust you again.”

And, what if this new friend invites you again to another party next month? Can you go on spending on gifts and new clothes?

Shravan sighed, “I guess I will just attend his birthday party at school with all other friends.”

Grandpa nodded. “That is a wise decision.”

Remember these two important rules:

- 1. Borrow for your needs not your wants.**
- 2. Borrow only when you know for sure that you can repay.**

The doorbell rang. Sharada, the fruit vendor greeted Grandpa.

“Sir, this is my neighbour Uma. She has a problem. Can you guide her?”

“Come in. What’s the matter?” Grandpa asked the two women to be seated.

Uma was in tears. “Sir, I need ₹ 40,000 urgently. Can you help me?”

“Calm down. Why do you need the money?”

“I have to go to my village to attend the wedding of my niece. I need ₹15,000 for the expenses – travel, new clothes for me and my family and gifts for my niece and my sister.

I had pledged my gold chain (worth ₹ 60,000) with the moneylender to borrow ₹ 10,000 last year for my daughter’s first birthday celebration. When I went to the money lender to ask for more money on the same chain, he says the loan is overdue and I owe him ₹25,000. If I don’t repay within a month, he says he will not give the chain back. While giving the loan he said interest is only 5%, now he says there are additional charges with penalty.

“Uma, you are being cheated by him. Henceforth never borrow from such informal sources. Banks are more transparent and give you loan at a lower interest.”

Difference between informal and formal sources of credit

MONEY LENDER



NO AGREEMENT



INTEREST = PER MONTH



ASSETS LOST

BANK



WITH AGREEMENT



INTEREST = PER YEAR



ASSETS CREATED

(Picture credit: Financial Literacy Guide

<https://www.rbi.org.in/commonperson/English/Scripts/FinancialLiteracyGuide.aspx>)

Always remember the following rules:

- **Borrow from formal institutions**
- **Borrow for productive purposes not for consumption expenses**

It is important that you stop borrowing for consumption expenses and social expenditure like weddings and festivals.

What if you decide not to attend the wedding?

“Sir, I will lose my respect in the village if I don’t attend the wedding or give gifts. No one will come to my daughter’s wedding.”

“If you borrow again, the debt will damage you. You will never be able to live in peace.

Your daughter is only two years old. You need to plan for her education expenses now, not for her wedding. If your daughter is educated and finds a good job, she will be respected in society.”

“Sir, even my husband suggested that we shouldn’t travel because of the lockdown.”

“Correct. This is the right time to stop such wasteful social expenditure. It will save you from the debt trap.”

She heaved a sigh of relief. “Yes sir. I will do as you say. But how do I get back my chain from the moneylender?”

“Do you have a bank account? Do you already have a loan from any bank?”

“I have a bank account. I have not taken any loan so far.”

“Good. You can approach the bank for a gold loan. You can pledge another gold ornament. The interest rate on the loan is much lower.

With that money, repay the moneylender and redeem your chain. “

“Yes sir. I will do that.” Uma got up.

“Wait. How will you repay the jewel loan?”

Uma smiled. “Sir, I am planning to start selling vegetables – Sharada has offered to guide me.”

“Take a small loan from the bank for your vegetable business. Use the loan to run the business and earn profits. Do not use the money for any other wasteful expenses. You will then get enough income to repay the loan.”

“Sir, banks ask for a lot of documents. They take a lot of time.”

“It is worth taking the effort to get the loan from the bank. The interest rate is low, the terms are transparent. You will not be cheated.”

“Ok, Sir. I will approach the bank.”

“Remember one more important rule.

Repay the interest and the loan on time as per bank’s terms.

Only then you will be able to get further loans.”

“Sir, many of my relatives have taken loans from banks and have not repaid. They just move to a different address.”

“Look here Uma, banks lend the money that customers deposit. If borrowers do not repay, banks will incur losses, customers will suffer, and it will affect all of us. As a good citizen, you must repay bank loans. Secondly, your credit history will be good if you repay on time. You can easily approach the bank for the next loan.”

“I understand. Thank you so much, Sir.”

Shravan smiled. “Grandpa, I now understand what responsible borrowing is.”

“Good. The Reserve Bank of India is trying to spread financial literacy among people. You will find these posters and short videos interesting.”

RESPONSIBLE BORROWING

WHEN DO WE BORROW? -
WHEN OUR EXPENSES ARE
MORE THAN OUR INCOME.

1. Borrow for your needs not your wants
2. Borrow only what you can repay
3. Borrow from formal institutions
4. Borrow for productive purposes not for consumption expenses
5. Repay on time

BE SMART!

Take loan from formal institutions.



Here's why you should seek credit from formal institutions:

- 1 Banks and registered finance companies are regulated by RBI
- 2 Grievance Redressal in case of non-adherence to fair practices



RBI Kehta Hai...
vittiya amushasan,
chinta mukt jeevan



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RESERVE BANK OF INDIA
www.rbi.org.in

BE WISE!

Borrow only as much as your ability to repay.



Here's how you can get the most out of your loan:

- 1 Use the loan amount for the purpose for which it has been taken
- 2 Monitor your dues and make timely repayments



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BE RESPONSIBLE!

Make sure you pay EMIs and dues on time.



Here's how you can be a responsible borrower:

- 1 Repay on time and build a good credit history
- 2 Honour your commitment and build trust with your lending institution



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Short Video – Borrow from official source /formal institutions

https://www.rbi.org.in/commonperson/English/Scripts/FLW21_BorrowingFormalInstitution.aspx

Short Video – Borrow the amount that you need, that you can repay

https://www.rbi.org.in/commonperson/English/Scripts/FLW21_ResponsibleBorrowing.aspx

Short Video – Timely repayment

https://www.rbi.org.in/commonperson/English/Scripts/FLW21_TimelyRepaymentCredit.aspx



Law in Focus Constitutional law

Kum Deepasri

In the previous parts of this series, we learned about

- ➔ The history of our constitution
- ➔ Constitutional law and
- ➔ The importance of constitutional law

In this edition, let's study some of the articles in detail, beginning with the Preamble and Part I.

THE PREAMBLE

We have all studied the Preamble to the Constitution in our textbooks. It can be considered a key to open the minds of the makers of the Constitution.

It reflects the **general intent and purpose for which they made the provisions contained** in the Constitution.

In particular, the Preamble declares that:

- (i) the source of the Constitution is the people of India;
- (ii) India is a sovereign, socialist, secular and democratic republic;
- (iii) the date of the commencement of the Constitution is 26th November, 1949; and

the objectives stated the Preamble are to secure justice, liberty, equality and fraternity to every citizen.

IS THE PREAMBLE A PART OF THE CONSTITUTION?

The issue as to whether the Preamble was a part of the Constitution and whether it can be amended under Article 368, had been a matter of discussion.

In the landmark case of ***Kesavananda Bharati vs State of Kerala***, the Hon'ble Supreme Court of India held that Preamble is indeed a part of the Constitution and can be amended.

To quote the then Chief Justice, SM Sikri, "*The Preamble of the Constitution is of extreme importance and the Constitution should be read and interpreted in the light of grand and noble vision expressed in the Preamble.*"

However, it was held that the 'fundamental structure' or the basic characteristics of the Preamble or the Constitution cannot be amended.

It is also pertinent to note that the Preamble:

- ➔ is neither a source of power to legislature nor prohibition upon the powers of legislature;
- ➔ is not justiciable, i.e., it is not enforceable in courts of law.

ADDITIONS UNDER THE 42ND AMENDMENT ACT

The words 'Socialist,' 'Secular' and 'Integrity,' were added to the Preamble through the 42nd Amendment of the Constitution in 1976.

In relation to this, some of you may have seen that the term 'socialism' is generally used to mean a system where the means of production is controlled wholly or partially by the Government.

However, India's socialism is intended to be a democratic form of socialism, rather than a communistic form. This is why the usage of both 'Democratic' and 'Socialist' in the Preamble is an interesting combination.

In the case of ***D. S. Nakara vs Union of India***, the Supreme Court observed that the **basic idea behind socialism is to provide a decent standard of life and security.**

PART I – THE UNION AND ITS TERRITORY

ARTICLE 1 declares that India, that is Bharat, shall be a Union of States and that the territory of India shall comprise the territories of the States, Union territories and such other territories as may be acquired by the Government.

The choice of structuring the Indian government as federal with a strong Centre, was made for political and administrative reasons and it establishes the intent at the outset.

However, it has been described as a 'Union' rather than a 'Federation' like the United States of America.

ARTICLE 2 provides that the **Parliament may admit into the Union or establish new states on such terms and conditions as it thinks fit.** The discretion given to the Parliament the choice of words is notable. This is an extension of the position that the States cannot claim complete equality of status. This differs from the theory of equality of States which is imbibed in the Constitutions of the USA, Australia, etc. For example, in the USA, each State sends an equal number of representatives to the Senate while in India, it is done on a proportional basis.

ARTICLE 3 allows formation of new States, alteration of areas, boundaries or names of existing States by the Parliament by law. **Further, the alteration of territory or names, can be done without the consent or concurrence of the States.**

CESSION OF INDIAN TERRITORY- CAN IT BE DONE UNDER ART. 3?

Article 3(c) grants power to the Parliament to increase or diminish the area of any State, by law. Does this power include the power to cede Indian territory to a foreign state?

The Supreme Court was presented with this question in a case and it decided that **cession of territory was outside the scope of Parliamentary legislation** and does not fall within the power under Article 3 to diminish area.

Therefore, **an agreement to transfer a territory to a foreign state cannot be implemented by passing a law under this provision.**

In the upcoming edition, we shall proceed to the next parts of the Constitution.

Do You Know?

Kesavananda Bharati vs State of Kerala

Facts of the case: Shri Kesavananda Bharati (head of *Edneer Mutt* in Kerala) challenged the Constitution (29th Amendment) Act, 1972, questioning the Kerala government's attempts, under land reform acts, to impose restrictions on the management of *Mutt* property.

Legal issue: The principal question raised in the case was about the power of Parliament to amend the Constitution in totality especially with respect to fundamental rights.

Decision: A Constitutional Bench of the Court held, by a wafer-thin 7:6 verdict, that Parliament can amend every Article in the Constitution but should be restrained from altering the 'basic structure' of the Constitution.

Do You Know?

D. S. Nakara v. Union of India

Facts of the case: Certain pensioners were excluded from increased benefit of pension because of their retirement date. The statute that prohibited them from the benefit was challenged based on the contention that the discrimination was unreasonable.

Issue: Whether differential treatment to pensioners on the basis of date of retirement involved discrimination liable to be declared unconstitutional as violative of Art. 14 of the Constitution.

Decision: The division which classified the pensioners into two classes on the basis of the specified date was arbitrary and unprincipled, being unrelated to the aim. Thus, the guarantee of equal treatment contained in Art. 14 was violated.

Cession/ to cede: The formal giving up of rights, property or territory by a country to another (usually after a war).

Article 368: This provision of the Constitution allows for amendment of the other articles by following prescribed procedures.



Know your Padma Awardees

Bhuri Bai

Smt Sumathi Ramakrishnan



PADMA SHRI
2021

Bhuri Bai

Art | Madhya Pradesh

*Internationally acclaimed Bhil Painter
from Jhabhua- First to transfer mud
wall paintings to huge canvases*

Born in Pitol village of Jhabua district (Madhya Pradesh) which is home to the Bhil tribe, Bhuri Bai experienced acute poverty firsthand and also worked as a child labourer to afford one square meal. When she was 10, her house was burnt down in a fire, so her family built a makeshift house from hay and lived there for years.

Jhabhua region is also the hub of **‘Pithora’, a spectacular ancient mural art form**. She took to this art form, despite skeptical reaction from her tribespeople.

Her skills improved over time, and she would often be invited to other houses in the village to draw. Bhuri spent her teenage years juggling construction labour and painting.

When renowned artist Jagdish Swaminathan was at the construction site, he saw Bhuri’s painted stones and asked her to replicate the same on paper. Impressed, he asked her to draw more, and for each painting, paid her Rs 50, way above her daily wage of Rs 6.

This is how Bhuri stepped into the world of art and started her life as a professional artist in the 80s.

The MP government offered her a job at the Adivasi Lok Kala Academy followed by the Tribal Museum where she conducts workshops to preserve the art form. She worked at the museum during the day and created masterpieces, that are worth millions, at night. If in Jhabua, she picked up the skills, in Bhopal she refined and modified them to suit contemporary themes and ideas. Her extensive visits to other parts of the country also became a point of learning.

Bhuri has been a pioneer and inspiration. Several women and girls are now earning their livelihood from paintings. Against all odds, Bhuri made sure that her life blossomed through Pithora.

Bhuri the Padma awardee continues to follow her daily routine and go to work at Madhya Pradesh Tribal Museum in Bhopal. Her innocence and humility are intact, mirrored in all her artworks.



➔ Pithora paintings have religious and cultural significance. No two paintings are the same. Artists use their own creativity, imagination, patterns and color combinations. Bhuri Bai has won many awards including the highest state honour by the MP government, the Shikhar Samman.

Lipai (first process in this painting) means covering the background of walls with cow dung, water and chuna.

The walls are then embellished with birds, animals, trees in vivid colours.

The paintings mainly use three lucky mascots of Bhilalala mythological stories — sun, moon, and horses to creatively portray daily activities of rural life like hunting, ploughing, and farming.



Architectural Wonders of India

National War Memorial

Smt Sumathi Ramakrishnan

Designed by WeBe design lab(2019).

The National War Memorial of India was proposed by the armed forces of the country to commemorate the war heroes of **1960**.



The princess park which was in the vicinity of the national monument India Gate, New Delhi which was a tribute to the soldiers martyred in the **First World War (1914-1918)** and the **Third Anglo-Afghan war (1919)** was considered as the potential site for the envisaged memorial.

NWM is conceived on the life and struggle of unsung soldiers who have sacrificed themselves for the nation. This spreads over **42 acres** in the C- hexagon, retaining the identity as “*people’s place*” and embracing the *memory of love, affection and pain*.



The NWM consists of 3 zones: The central zone is the main memorial designed as concentric circles of different emotions namely

- ➔ Circle of Protection (Raksha chakra)
- ➔ Circle of Sacrifice (Tyagi Chakra)
- ➔ Circle of Bravery (Veer Chakra) and
- ➔ Circle of Immortality (Amar Chakra)

The North and South zones are utility spaces for the memorial.

The **Param Yodha Sthal** - A dedicated walkway connecting statues of the 21 Paramveer Chakra awardees

Do You Know?

- ➔ In 2016, an international two stage competition was held for the design and implementation of the memorial by the Ministry of Defence. Around 427 designers participated globally and 9 architects were shortlisted and asked to develop the design further. The winners were announced in 2017 March.
- ➔ Each fallen soldier is imagined as a brick in the process of building the nation and arranged as series of concentric rings, symbolizing the act of protection, sacrifice and bravery as an immortal presence in the form of the eternal flame.



Flora & Fauna of India

Nilgiri Laughing Thrush

The Nilgiri laughingthrush (**Montecincla cachinnans**) is a laughing thrush species only found in the Nilgiris and neighbouring hill ranges in Peninsular India. It may be identified by its predominantly rufous (reddish brown) underparts, olive brown upperparts, conspicuous white eyebrow and black throat. The tail is olive brown. The iris is reddish brown and the legs and bill are black.

HABITAT

This species can be found in dense woodland areas 1,200 metres above sea level. It forages alone or in small groups along the forest border, low in the trees and sometimes on the ground.

BEHAVIOUR AND ECOLOGY

These birds are active in the early morning and late afternoon and are extremely vocal. While one bird calls in a series of loud ascending and descending nasal notes, another in a nearby bush produces a series of sharp notes. They feed on the nectar.

Smt Ghana Saraswathi



They nest from February to the beginning of June. The male as well as the female build the nest.

The eggs are laid within a few days of completing the nest construction. The young fledge after 15–18 days but continue to remain nearby for about three weeks.

Do You Know?

- ➔ The laughingthrush family contains 133 species in 16 genera.
- ➔ It is listed as endangered.



BIRD WATCHING BINOCULARS

For bird watching, **recommended specification is 8 x 42.**



The first number refers to **magnification** and the second refers to the **diameter of the front lens.**

**Know
your**

Legacy

Karkota Dynasty

Shri Krishnakumar C S

Many Indians, unfortunately, do not have a clear understanding about the culture and history of Kashmir. Right from the ancient period it has been an integral part of 'Bharatvarsha'.

The Kashmir Valley was under Ashoka of the Mauryan Empire. It remained part of the Kushana dominion under Kanishka and Huvishka.

Karkota Dynasty was founded by Durlabhvardhana. It ruled over the Kashmir valley and some northern parts of the Indian subcontinent during the 7th and 8th centuries.

It was a period of political expansion, economic prosperity and the emergence of Kashmir as a centre of Indian culture and scholarship.

The Karkota rulers were Vaishnavites and constructed several Vishnu shrines in their dominions.

Buddhism also flourished during their reign. Several Stupas, Chaityas and Viharas were built.

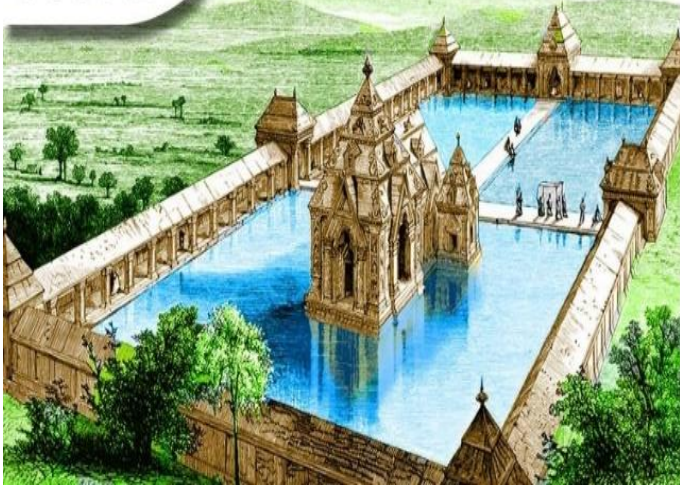
Martand, the oldest known **Sun temple** in India in the Anantnag district was built by Lalitaditya.



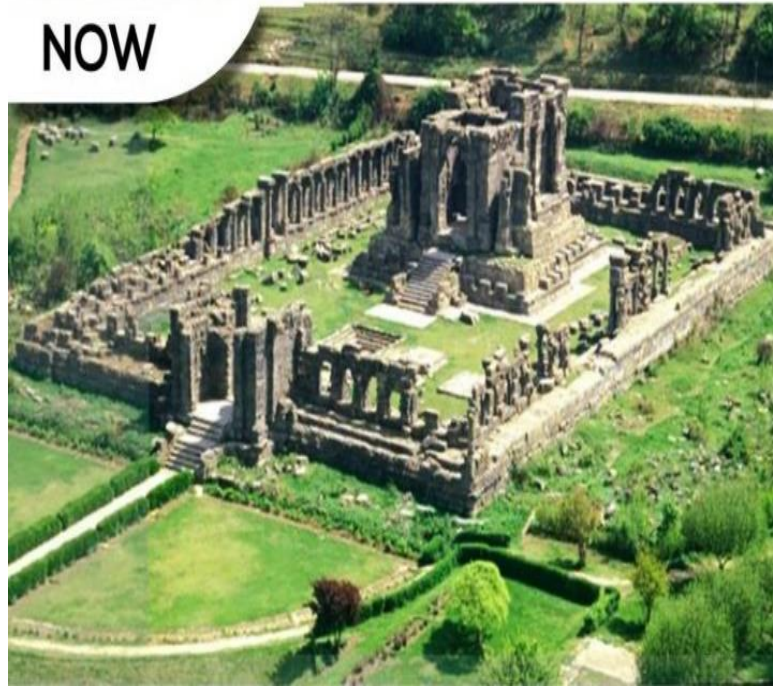
MARTAND SUN TEMPLE, KASHMIR

Destroyed by Sultan Sikandar Shah Miri in 1401

760 AD

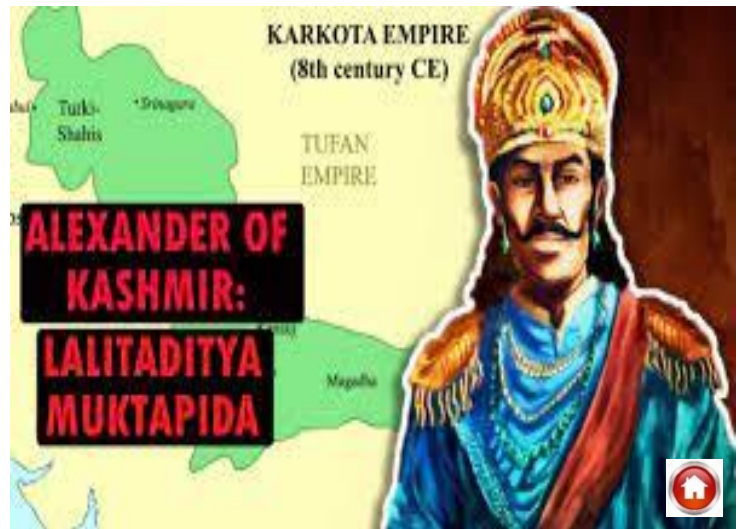


NOW



Important Kings of Karkota Dynasty

- (i) **Durlabhvardhana** – The founder
- (ii) **Durlabahaka** – Son of Durlabhvardhana .
- (iii) **Lalitaditya Muktapida** - Grandson of Durlabahaka. He created an empire based on Kashmir and covering most of Northern India and Central Asia including most parts of Pakistan. He was able to vanquish the Turks, Tibetans, Bhutias, Kambojas etc. After his death, the kingdom gradually declined.



Know your Nation

DADRA AND NAGAR HAVELI

It was a lovely day! Dadu was reclining in an armchair, sipping coffee. Just then....

Balu: Dadu, please hurry up! There is a live contest going on. If I answer all the questions correctly, I can bag several prizes.

Dadu: What's it about?

DADU & BALU



Kum Priyadharshini

Balu: On this channel they play a few clippings of folk and tribal dances. Viewers have to identify correctly. But for this Dadu, I have answered everything. Help me Dadu!

Dadu: [watching] Ahh! This is **Tarpa**. [Balu interrupts.....]

Balu: I'll be right back, Dadu.



[A few minutes later]

Balu: Dadu! [Elated] I won the contest!

Dadu: Congratulations, Balu!

Balu: Thanks, Dadu!! Tarpa is the folk dance of which place?

Dadu: Let me give a clue. You got a tortoise shell craft and handcrafted mat from your friend, remember? That place is its former neighbouring union territory.

[Daman and Diu (Prajya April 2021)].

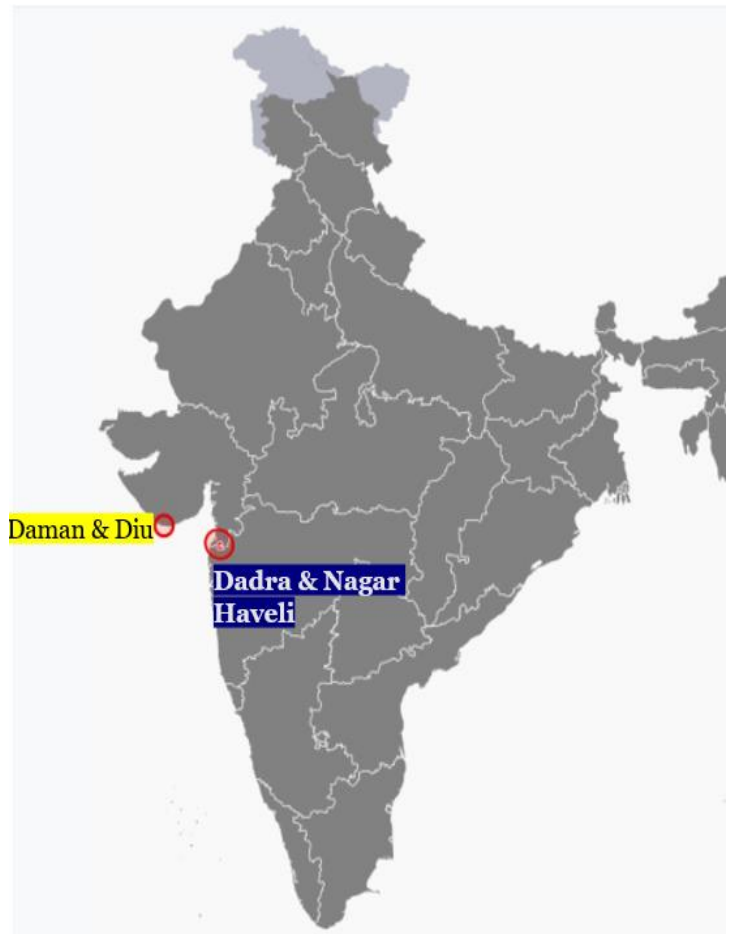
You can have a look at the map.

Balu: [doubtfully] Is it Dadra and Nagar Haveli?

Dadu: That was inch-perfect!! Now's the time to know more about it.

Balu: [Thrilled] Yes!!!Dadu, go on.....

Dadu: Dadra and Nagar Haveli is a district of the UT of Dadra & Nagar Haveli and Daman & Diu in western India.



Daman & Diu was a separate union territory until 26th January 2020, before it was merged with Dadra and Nagar Haveli to form a single UT because of its small size.

It is located between Gujarat and Maharashtra, 24 km from the Arabian Sea and 130 km north of Mumbai.

It is surrounded by the Sahyadri Mountains. River Daman Ganga and its three tributaries cut across this.

Balu: OK!! Any interesting stories?

Dadu: Yes!! Its history begins with the defeat of the Kohli chieftains of the region by the invading Rajput kings.

In the mid-eighteenth century, the Marathas freed the region from Rajputs' rule.

In 1779, the Maratha Peshwa formed an alliance with the Portuguese, allowing them to collect revenue from the 72 villages of Dadra and Nagar Haveli.

The Portuguese ruled until August 1954, when it became independent.

From 1954 to 1961, the territory functioned almost independently as the "Free Dadra and Nagar Haveli Administration".

In 1961, the region became a Union Territory of India, with Silvassa as its capital.

Balu: Dadu, what do they do for a living?

Dadu: Agriculture is the chief occupation, done on terraced land.

The dam and reservoir on the Daman Ganga have really helped the irrigation.

Timber production is mainly based on native teak.

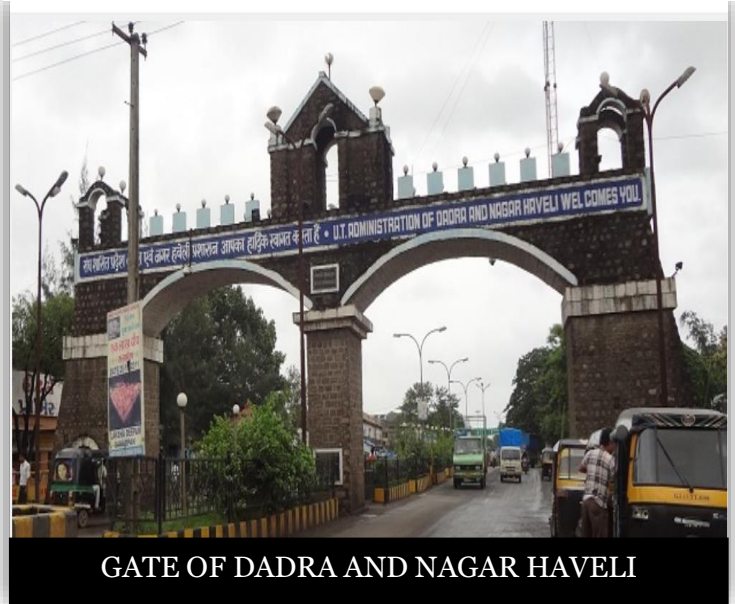
Prior to 1965-1966, there were a few traditional craftsmen who used to make pots, leather items, chappals, shoes and other items made of bamboo.

Later, engineering, fabric weaving, dyeing and printing units were established. Now, there are only minimal large-scale industries.

Balu: What about their culture? Any exciting places to visit?

Dadu: Just have a look!

Balu: [Delightedly] It is a must-see destination, Dadu!!



GATE OF DADRA AND NAGAR HAVELI



CHURCH OF OUR LADY OF PIETY



ASTRO THEMED NAKSHATRA GARDEN



DUDHANI



SATMILA DEER SANCTUARY



VASONA LION SAFARI



HIRAWAN GARDENS



Swachh Bharat Success Stories

Shwetha V | Student (XI)

Mawlynnong

Prime Minister Mr. Narendra Modi launched the country's biggest-ever cleanliness drive, saying that **Swachh Bharat Mission is beyond politics and inspired by patriotism.** We hope this becomes a mass movement and delivers the desired effect of a Clean India.

Mawlynnong in Meghalaya, is rightly called "God's own Garden." It was awarded the title "**Cleanest village in Asia**" by Discover India in 2003.

Cleanliness may be its most important aspect, but it has achieved so much more than that. From a full hundred percent literacy rate to a highly progressive scenario for women, it has struck all the correct chords.

Umthli village in East Khasi Hills is a perfect example of community involvement, demonstrating that it doesn't require civic workers to keep the place clean. Taking **Swachh Bharat** mission seriously, this village has completely got itself rid of wet waste and the problem of litter within a period of 4-5 months.

It is mandatory for at least one member from every family to participate in the weekly cleaning activity organised by the heads of the village.

On every Saturday, when an alarm goes off at 7.00 a.m., residents come out armed with brooms and other cleaning equipment and launch a battle against garbage.



Every week, the team of **‘Village Durbar’**, which monitors the cleanliness drives, sits together and chalks out a plan and assigns activities to people.

Everyone from children, women, men and older population enthusiastically participate in the weekly cleaning drive.

All the roads, footpaths, parks and public places are swept by the residents. After months of this exercise, now the cleaning process doesn't take more than an hour to cover the entire village as most of it remains clean.

The village of about 2,000 people doesn't require any municipal body to deal with its everyday waste. Around 192 households compost kitchen /wet waste. Every backyard in the village has a compost bin which turns the wet waste into precious manure.

Swachh Bharat Abhiyan can make India cleaner and greener, if all citizens participate in this drive wholeheartedly.

For more information:

<https://youtu.be/Z-417h7zbRE>



The Inspiring Story of Asha Khandara

Asha Kandara (40), who was once a sanitation worker is now a deputy collector. This single mother of two was abandoned by her husband eight years ago.

Initially, she aimed at clearing the IAS examinations. But due to the age limit she couldn't, so she focused on the Rajasthan Administrative Services Examinations and aced despite her struggles.

Her success was lauded hugely. The Mayor and senior officers of Jodhpur Corporation felicitated her.

Asha said that she felt proud when she sat with senior officials like an equal, during her felicitation event.



“This is what I struggled for,” she said. Speaking of her goals as an officer, she said, “I want to work for bringing justice to society as an administrative officer. My endeavour is not just for my community, but for every victim of injustice.”

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