SAMKALP VEDHIK CURRENT AFFAIRS NOVEMBER 2023



FOR CIVIL SERVICES PRELIMINARY, MAINS, STATE ADMINISTRATIVE SERVICES AND ALL COMPETITIVE EXAMINATIONS UNDER UPSC, SSC AND STATE PSCs

0000





India's Largest & Most Innovative Online IAS Academy

Achieve IAS at the Age of 21

Prepare for 568 Competitive Exams Including Civil Services

Coaching For UN Civil Service

Learn from The Legends



SRI. SANTOSH TANEJA Founder SAMKALP IAS Chairman, Academic Council



DR. G. Prasanna Kumar IAS Addl Chief Secretary to Govt. of Haryana Dean, Vedhik IAS Academy



DR Alexander Jacob IPS Former DGP, Kerala Academic Dean, Vedhik IAS Academy



DR Babu Sebastian Former VC, MG & Kannur University Chancellor, Vedhik IAS Academy

Complete your Civil Service Coaching for just Rs. 30,000/-



7777875588 | 04844527777



SAMKALP VEDHIK CURRENT AFFAIRS

NOVEMBER 2023

FOR CIVIL SERVICES PRELIMINARY, MAINS, STATE ADMINISTRATIVE SERVICES AND ALL COMPETITIVE EXAMINATIONS UNDER UPSC, SSC AND STATE PSCs

> M4 - Houz Khas New Delhi - 16 Registered Office : 4th Floor, Mercy Estate,Ravipuram, Ernakulam, Kerala - 682 015 www.vedhikiasacademy.org 7777 87 55 88 | 0484 4452 7777

CONTENTS

HISTORY-ART AND CULTURE08-12

UNESCO'S CREATIVE CITIES NETWORK GURU NANAK JAYANTI: CELEBRATING THE FOUNDER OF SIKHISM CHHATH PUJA THE FIRST FIELD MARSHAL: SAM MANEKSHAW



GEOGRAPHY14-18

RAFAH BORDER CROSSING PHREATOMAGMATIC ERUPTION SOME MISTAKES GET MADE MOUNT ETNA



POLITY AND GOVERNANCE19-28

IT'S TIME TO REVAMP THE STRUCTURE OF THE SUPREME COURT THE NEED TO DISCLOSE POLITICAL DONATIONS SHORTAGE OF STAFF, FINANCIAL DEPENDENCY PLAGUE LOCAL GOVERNANCE SIGNIFICANCE OF ALL INDIA JUDICIAL SERVICE ILO REPORT URGES COUNTRIES TO STRENGTHEN SAFETY NET



INTERNATIONAL RELATIONS30-36

UNDERSTANDING THE U.S.-ISRAEL RELATIONS THREATS TO GLOBAL PEACE AND SECURITY THE CHALLENGE OF MARITIME SECURITY IN THE GLOBAL SOUTH AKHAURA-AGARTALA RAIL LINK INAUGURATED



INTERNAL SECURITY40-42

INS IMPHAL

CYBERSECURITY: NAVIGATING THE CURRENCY DEMAND PARADOX UNIFORM CYBER SECURITY STANDARDS CERT-IN EXEMPTED FROM RTI JOINT MILITARY EXERCISE MITRA SHAKTI-2023 PRALAY TACTICAL BALLISTIC MISSILE

ECONOMICS....44-63

STATE OF INDIAN ECONOMY – NOVEMBER, 2023 UPDATES SIXTEENTH FINANCE COMMISSION PRADHAN MANTRI JANJATI ADIVASI NYAY MAHA ABHIYAN MANDATORY BLENDING OF COMPRESSED BIOGAS SPECIAL CELL TO MONITOR FOOD PRICES SEA PROTOCOLS TO BOOST EXPORT HORTICULTURAL PRODUCTS

CONTENTS

ECOLOGY 64-74

CLIMATE FINANCE AUDIT REVEALS ALARMING DEFICITS BIOSPHERE RESERVES: BEACONS OF EVOLVING HOPE SOUTHERN INDIA: SIXTH DRIEST OCTOBER, 60% LESS RAINFALL ADAPTATION GAP REPORT 2023 2030 FOSSIL FUEL LIMIT TO DOUBLE: REPORT WARNS CITES PARTIES URGED FOR STRICT JAGUAR CONSERVATION MEASURES DOMINICA ESTABLISHES FIRST MARINE SANCTUARY FOR SPERM WHALES IGBC INTRODUCES 'NEST' FOR ECO-FRIENDLY HOUSING CERTIFICATION SOUTH INDIA RESERVOIRS AT 50% CAPACITY DROP NATIONAL OIL SPILL DISASTER CONTINGENCY PLAN GLOBAL TIGER RECOVERY PROGRAM 2.0 STATE FISH FOR GUJARAT DELHI PLANS 'CLOUD SEEDING' TO TRIGGER RAINS DURING POLLUTION SHRINKING KADALUNDI MUDFLAT DETERS BIRDS



SCIENCE AND TECHNOLOGY76-87

ZIKA GENOME REVEALS EMERGING OUTBREAK ERA ASSESSING BIODIVERSITY WITH E-DNA SEQUENCING NET NEUTRALITY815 MILLION INDIANS' PERSONAL DATA BREACHEDLADAKH OBSERVATORIES DETECT RED AURORA LARGE LANGUAGE MODELS (LLMS) DEEPFAKES EUCLID SPACE TELESCOPE RASHTRIYA VIGYAN PURASKAR 60 YEARS OF INDIAN SPACE PROGRAM PROGRESS 'AGNI' INITIATIVE TANTALUM



CSAT88-91

ASSERTION-AND-REASON TYPE

ETHICS92-96

BUSINESS OBJECTIVE AND WHISTLE BLOWING



TOPICS OF THE MONTH98-104

THE NEED OF RURAL DEVELOPMENT FOR NATION'S DEVELOPMENT

- DR. Alexander Jacob IPS

STRUGGLE OF SCIENCE AND CULTURE IN INDIA

- DR. Babu Sebastian

CONTENTS

TOPICS OF THE MONTH98-104

MODEL QUESTION PAPER - MCQ106-112

ONLY THOSE WHO CAN DELIVER MUST RULE

-DR. G. Prasanna Kumar IAS FUTURE WARFARE: COMMAND, CONTROL, COMMUNICATION AND INTELLIGENCE - Mr.Solomon John



EDITORIAL BOARD

PATRON

SRI. SANTOSH TANEJA FOUNDER SAMKALP

CHAIRMAN

DR ALEXANDER JACOB IPS FORMER DGP, GOVT. OF KERALA

VICE CHAIRMEN

DR G. PRASANNA KUMAR IAS FORMER ADDL. CHIEF SECRETARY - GOVT. OF HARYANA SRI. VISHNU PRAKASH IFS FORMER AMB. - INDIA'S HIGH COMMISSIONER TO CANADA

CHIEF EDITOR

DR BABU SEBASTIAN FORMER VICE CHANCELLOR - MG & KANNUR UNIVERSITY

EXECUTIVE EDITOR

DR G. R. PATIL IRS - SAMKALP IAS ACADEMY

EDITORIAL BOARD MEMBERS

DR MUHAMMED BASHEER FORMER VICE CHANCELLOR - UNIVERSITY OF CALICUT Mr. ADUL SANKAR FACULTY - VEDHIK IAS ACADEMY Mr. SOLOMON JOHN FACULTY - VEDHIK IAS ACADEMY Mr. SHAHUL HAMEED FACULTY - VEDHIK IAS ACADEMY Ms. SHILPA S FACULTY - VEDHIK IAS ACADEMY Mr. T.R RAJESH FACULTY - VEDHIK IAS ACADEMY Mr. GOKUL M.S FACULTY - VEDHIK IAS ACADEMY

DESIGN

MS. ANILA BABU DESIGNER - VEDHIK IAS ACADEMY



HISTORY-ARTS AND CULTURE

D



UNESCO'S CREATIVE CITIES NETWORK GURU NANAK JAYANTI: CELEBRATING THE FOUNDER OF SIKHISM

CHHATH PUJA

THE FIRST FIELD MARSHAL: SAM MANEKSHAW



UNESCO'S CREATIVE CITIES NETWORK

Kozhikode and Gwalior Join the Prestigious Network

The city of Kozhikode in Kerala and Gwalior from Madhya Pradesh were added to UNESCO's Creative Cities Network (UCCN), joining 55 other new cities in this global initiative.



Diverse Representation in Creative Fields

These cities have been carefully chosen to represent seven creative fields, namely crafts and folk arts, design, film, gastronomy, literature, media arts, and music. Kozhikode finds its place in the category of literature, while Gwalior is recognized for its contributions to music.

Understanding the UNESCO Creative Cities Network (UCCN):

A Global Initiative for Sustainable Urban Development

Established in 2004, the UCCN aims to foster collaboration among cities that prioritize creativity for sustainable urban development. Currently encompassing 350 cities in over a hundred countries, the network seeks to harness the creative, social, and economic potential of cultural industries.

Promoting UNESCO's Goals

The UCCN aligns with UNESCO's objectives of promoting cultural diversity and building resilience against challenges such as climate change, growing inequality, and rapid urbanization. It encourages a culture of creativity in urban

planning and offers innovative solutions to urban problems.

Indian Cities in the Network: Beyond Kozhikode and Gwalior

In addition to Kozhikode and Gwalior, Varanasi (music), Srinagar (crafts and folk arts), and Chennai (music) proudly represent India in the UNESCO Creative Cities Network.

Kozhikode's Literary Tradition

Kozhikode, a city in North Kerala, boasts a rich literary tradition with renowned personalities contributing significantly to the state's cultural landscape. The city has been a nurturing ground for prominent writers, media houses, publishing banners, and libraries.

The CCCN's Vision and Mission: Fostering Creativity in Urban Development

The UNESCO Creative Cities Network allows member cities to recognize creativity as a vital element of urban development. By fostering partnerships between public and private sectors and civil society, the network aims to create hubs of creativity and innovation.

Implementing Sustainable Development Goals

Member cities, including Kozhikode and Gwalior, are committed to achieving the UN agenda of sustainable development. They must submit Membership Monitoring Reports every four years, outlining their action plans, achievements, lessons learned, and the impact of their designation.

Annual Conference of Network Cities: Strengthening Global Ties

A key feature of the network is the annual conference, bringing together mayors and stakeholders from member cities worldwide. This event serves as a platform to exchange practical information on policies, activities, and foster collaborations among creative cities.

Looking Ahead: Braga, Portugal 2024

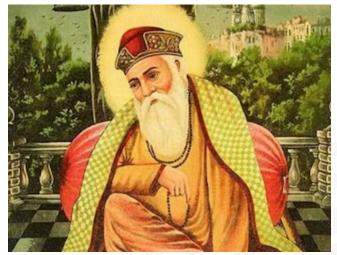
The upcoming conference in July 2024 will be hosted in Braga, Portugal, continuing the tradition of strengthening ties and advancing the objectives of the UNESCO Creative Cities Network.





GURU NANAK JAYANTI: CELEBRATING THE FOUNDER OF SIKHISM

Guru Nanak Jayanti commemorates the birth of Guru Nanak, the founder of Sikhism and the first of its nine gurus. Sikhs observe this day with Nagar Kirtan, a procession involving hymn singing and visits to gurudwaras.



Guru Nanak's Early Life and Spiritual Journey

Born on April 15, 1469, in a Hindu family in Nankana Sahib (now in Pakistan), Nanak showed an early interest in philosophical questions about life and religion. After working as an accountant, he joined a Muslim minstrel named Mardana, marking the beginning of his spiritual journey.

At the age of 30, during a morning ablution by the river,

CHHATH PUJA

On November 19, President Droupadi Murmu and Prime Minister Narendra Modi conveyed their wishes for Chhath Puja, marking the third day of the festival. The celebration, concluding a day later, has gained prominence beyond its traditional roots, with widespread observance across the country.



Unveiling the Significance of Chhath Puja: An Elaborate Four-Day Celebration Honoring the Sun

Chhath Puja is a four-day festival dedicated to honoring the Sun. It involves a rigorous fast without water and offerings to Usha and Pratyusha, representing the rising and setting Sun. The festival's roots intertwine with historical events, including Lord Ram and Goddess Sita's post-victory fast and a yagna for the Sun god.

Rituals, Beliefs, and Spiritual Significance: Chhath's Deep Connection to Bihar's Religiosity

Chhath is deeply ingrained in Bihar's religiosity, symbolizing a unique devotion and connection to the divine. While fasting is observed by some, the entire community actively engages in preparing for the festival, emphasizing cleanliness, ritual materials, and the iconic thekuas, a Bihari culinary delight.

Nanak had a profound spiritual experience. Described as communion with God, he received a cup of nectar and a divine mission to spread teachings of prayer, charity,

Nanak undertook extensive travels on foot, reaching places like Sri Lanka, Baghdad, central Asia, Mecca, and Madina. These journeys, known as 'udaasis,' involved interactions

Nanak actively engaged with people across communities

In the later years of his life in Kartarpur, Nanak established

a routine for his disciples involving morning prayers, hymnsinging, and acts of service. In choosing his successor,

Guru Angad (Lehna), Nanak ensured the continuation of his

Guru Nanak's life and teachings continue to be celebrated

on Guru Nanak Jayanti, reflecting the core values of Sikhism and his commitment to fostering understanding and unity

ablution, service, and remembrance of the Word.

with diverse religious figures and communities.

Spreading Teachings through Udaasis

Preaching the Oneness of God

to promote the Oneness of God.

Selection of Guru Angad as Successor

teachings and the growth of Sikhism.

among diverse communities.

Chhath Puja Celebration Journey: Commencing on the Sixth Day of Kartik Month

Chhath Puja initiates on the sixth day of the Kartik month, typically in October-November, and alternatively in Chaitra (April) for some. Chhathi maiyya, considered the Sun's sister, demands strict adherence to the festival's rules, promising spiritual gains for devoted observers.

Rituals of Chhath Puja: From Nahakha to Arghya

The festival begins with 'nahakha,' where a ceremonial bath precedes the first meal. 'Kharna' follows, where a solitary evening meal is consumed, and the preparation of thekuas takes center stage. A 36-hour waterless fast ensues, leading to the third day's culmination at water bodies adorned with offerings and rituals.

Unique Aspects of Chhath Puja: Unity, Equality, and Nature's Reverence

Chhath Puja stands out for its inclusive nature, welcoming people of all castes. With no involvement of priests, devotees directly connect with a visible, accessible God. Seasonal, locally produced fruits are offered, emphasizing nature's abundance. The festival's message resonates with equality, emphasizing the cyclical nature of life and the importance of breoth dusk and dawn.



THE FIRST FIELD MARSHAL: SAM MANEKSHAW

Early Life and Education

Born in Amritsar to Parsi parents, Sam Manekshaw's journey began under the care of Hormusji and Heerabai Manekshaw, who had migrated from Valsad on the Gujarat coast

After completing his schooling in Punjab and Sherwood College, where he achieved distinction in the school certificate examination, Manekshaw expressed a desire to study medicine in London. However, in an act of rebellion, he opted for enrolment into the Indian Military Academy (IMA) at Dehradun.

Military Career Unveiled



In 1932, Sam Manekshaw became part of the inaugural intake of 40 cadets at the IMA, graduating on February 4, 1934, and securing a commission as a second lieutenant in the British Indian Army.

During World War II, Manekshaw showcased his military

prowess while serving in the British Indian Army. His gallantry in the Burma campaign and subsequent contributions marked the early chapters of his illustrious military career.

Chief of the Army Staff (COAS)

In 1969, Sam Manekshaw assumed the role of the eighth Chief of the Army Staff (COAS), a pivotal position that propelled him to the forefront of India's military leadership.

Victorious Indo-Pakistani War of 1971

Under Manekshaw's command, Indian forces achieved triumph in the Indo-Pakistani War of 1971. The victory resulted in the liberation of Bangladesh in December 1971, a historic moment that etched his name in military history.

Legacy and Contributions: Military Legacy Across Eras

Sam Manekshaw's military career spanned four decades, encompassing the British era, World War II, and the postindependence conflicts with Pakistan and China. His diverse roles included regimental, staff, and command assignments.

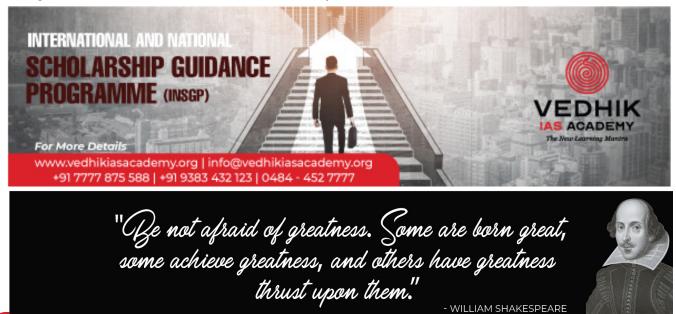
Chief Architect of India's Victory

Ascending to the position of Chief of the Army Staff, Manekshaw successfully led the Indian Army in the war against Pakistan, culminating in his appointment as India's first Field Marshal.

Expertise in Planning and Administration: Handling Partition Issues

Manekshaw's acumen for planning and administration came to the fore while dealing with the complex issues surrounding Partition in 1947. Subsequently, his strategic skills were put to the test during operations in Jammu and Kashmir in 1947-48.

Sam Manekshaw's journey from rebellious cadet to India's first Field Marshal epitomizes a life dedicated to military excellence, strategic brilliance, and unwavering leadership. His contributions continue to resonate in the annals of India's military history, leaving an enduring legacy for generations to come.



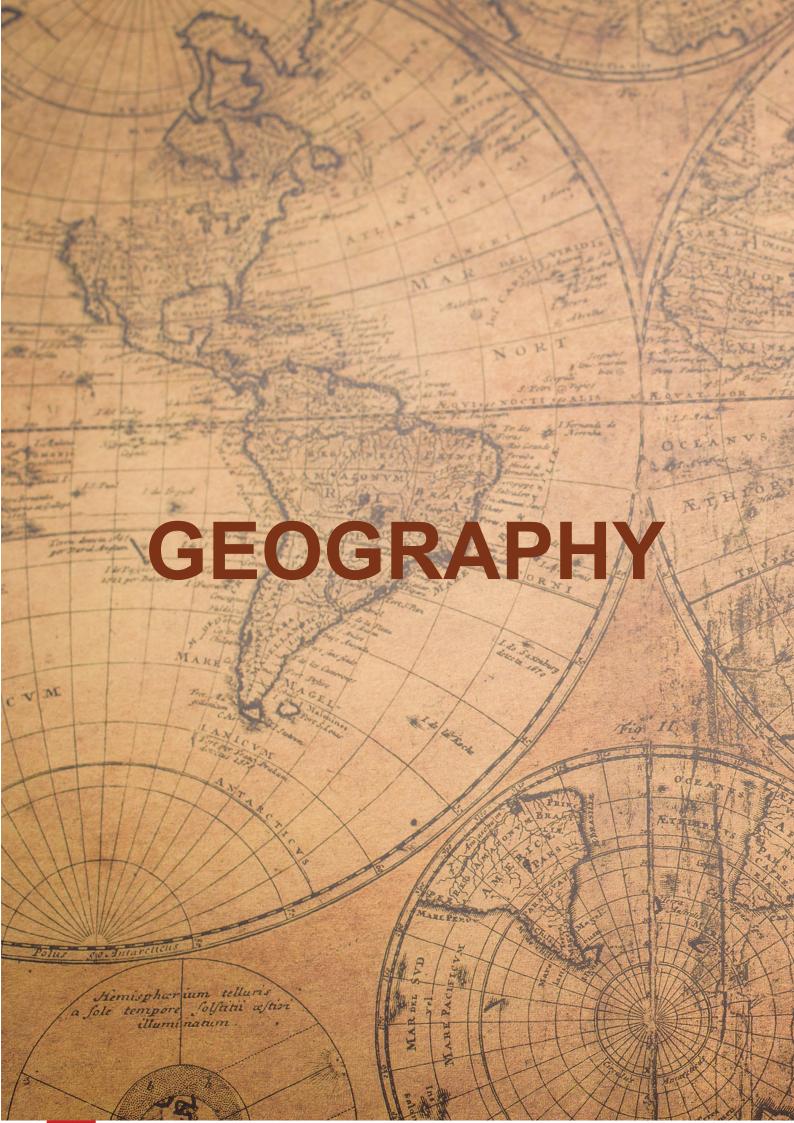
- WILLIAM SHAKESPEARE



1 STOP SOLUTION

FOR YOUR UPSC EXAM PREPARATION

www.vedhikiasacademy.org





RAFAH BORDER CROSSING PHREATOMAGMATIC ERUPTION SOME MISTAKES GET MADE MOUNT ETNA

1 35 8

tolftino Ta

ON

MIE

¢

cay



RAFAH BORDER CROSSING

CONTEXT: Egypt agreed to receive wounded Palestinians from Gaza, and Palestinian dual nationals from its Rafah border crossing. This decision comes in response to the recent conflict between Hamas militants and Israel.

About the Rafah Crossing:

The Rafah Crossing is the southernmost exit point from the Gaza Strip and shares a border with Egypt's Sinai Peninsula. It is controlled by Egypt and is the only exit that does not lead to Israeli territory. Currently, both Erez and Kerem Shalom border crossings, controlled by Israel, are closed, making Rafah the primary entry and exit point for Gaza's people and humanitarian aid.



- It is an eruption that involves both magma and water. It typically interacts explosively leading to concurrent ejection of steam and pyroclastic fragments.
- Phreatomagmatic ash is formed by the same mechanism over a wide range of basic and acidic compositions. A blocky and uniform crust with low vesicle content is formed.
- Deposits from phreatomagmatic eruptions are thought to be better classified and finer-grained than those from magmatic eruptions.
- This is the result of higher fragmentation of phreatomagmatic eruptions.

Cloud Seeding

Recently, IITM Pune demonstrated that cloud seeding can produce rainfall.

- Cloud seeding is a kind of weather modification technology to create artificial rainfall.
- The goal of this work is to change the amount of precipitation that falls from the sky or to alter the type that would reach the ground.

Mechanism

- It is a way of changing the amount or type of precipitation that falls from clouds, by dispersing substances into the air that serve as cloud condensation.
- Drones are charged into the clouds and cause an electric shock due to which they clump together and cause rainfall.

Kawah Ijen Crater Lake in East Java, Indonesia

It is the world's largest acidic lake, as it contains high concentrations of sulphuric and hydrochloric acids, making it un swimmable.

It's easily visible from space (turquoise blue waters) and has a pH as low as 0.5, similar to car battery acid. The lake also emits hot, flammable sulphurous gases that burn with an eerie blue flame, blue fire, creating a mesmerizing night time spectacle. Despite its harsh conditions, there is life in the form of microbial communities (mainly Archaea) in the lake and its acidic river.

It's a UNESCO Global Geopark with unique geological, biological, and cultural features. The active vent at the edge of the lake serves as a significant source of elemental sulphur, supporting a rigorous mining operation.

The Copernicus Sentinel-2 mission, which provides optical images of Earth's surface, captured the stunning images of this unique natural phenomenon. Despite its inviting appearance, the lake is filled with a high concentration of sulphuric and hydrochloric acids, as well as dissolved minerals.

PHREATOMAGMATIC ERUPTION

Silver iodide, dry ice, and potassium iodide are the most common items used to initiate the cloud-seeding process.

Types

There are three cloud seeding methods: static, dynamic and hygroscopic.

- Static cloud seeding: involves spreading a chemical like silver iodide into clouds.
- Dynamic cloud seeding: aims to boost vertical air currents, which encourages more water to pass through the clouds, translating into more rain.
- Hygroscopic cloud seeding: disperses salts through flares or explosives in the lower portions of clouds.

Advantages of Cloud Seeding

- Cloud seeding can help to produce more precipitation.
- It can make the land more suitable for living.
- It helps to regulate weather patterns in specific locations.

Disadvantages of Cloud Seeding

- Specific atmospheric conditions must exist for cloud seeding to work: It works only when there are enough pre-existing clouds in the atmosphere.
- The effectiveness of cloud seeding is still under review.
- It is an expensive venture.



SOME MISTAKES GET MADE

CONTEXT: Recently, a magnitude-6.4 earthquake was witnessed in Nepal.

northwestern part of the country late last night, officials

Earthquake focus

and epicenter

An earthquake is the shaking or trembling of the earth's

It is caused by the seismic waves or earthquake waves

that are generated due to a sudden movement (sudden release of energy) in the earth's crust (shallow-focus

earthquakes) or upper mantle (some shallow-focus and all intermediate and deep-focus earthquakes).

A seismograph, or seismometer, is an instrument used

Hypocentre/Focus: The point where the energy is

Epicentre: The point on the surface directly above the

Isoseismic line: A line connecting all points on the

Fault scarp

Epicente

said.

About Earthquake

Wave fronts

surface.

released.

focus.

Background: In Nepal, at least 128 people were killed and **Causes of Earthquakes** 140 injured when a magnitude-6.4 earthquake shook the

- Fault Zones
- Plate tectonics
- Volcanic activity
- Human-Induced Earthquakes

Types of Earthquakes

Tectonic Earthquakes

- The most common ones are tectonic earthquakes.
- The Earth is made of four basic layers (generally three): a solid crust, a hot, nearly solid mantle, a liquid outer core and a solid inner core.
- Tectonic plates (Lithospheric plates) are constantly shifting as they drift around on the viscous, or slowly flowing, mantle layer below.
- When tectonic plates move, it also causes movements at the (Anatolian Plate)
- Thus, the slipping of land along the faultline along convergent, divergent and transform boundaries causes earthquakes.

Volcanic Earthquake

- Earthquakes produced by stress changes in solid rock due to the injection or withdrawal of magma (molten rock) are called volcano earthquakes. Human Induced Earthquakes
- In areas of intense mining activity, sometimes the roofs of underground mines collapse causing minor tremors. These are called collapse earthquakes.
- Ground shaking may also occur due to the explosion of chemical or nuclear devices. Such tremors are called explosion earthquakes.

MOUNT ETNA

Europe's most active volcano and one of the largest in the world, has been erupting frequently since February 2023, sending plumes of ash and fountains of lava into the sky.

What are the Key Facts About Mount Etna?

surface where the intensity is the same.

to detect and record earthquakes.

Mount Etna is a stratovolcano, which means it is composed of lavers of lava, ash, and rocks that have accumulated over thousands of years of eruptions.

It is located on the east coast of Sicily, an island in the Mediterranean Sea that belongs to Italy.

It stands about 3,300 metres above sea level and covers an area of about 1,200 square kilometres.

Mount Etna has four summit craters and hundreds of lateral vents that can produce different types of eruptions, such as explosive, effusive, or mixed.

Mount Etna has been erupting almost continuously since 1500 BC, making it one of the most active volcanoes in the world.

What is a Volcano?

About:

Volcanoes are openings or vents where lava, rocks, and steam erupt onto the Earth's surface.

They result from both their own eruptions and the general formation of the planet through the movement and collision of tectonic plates.

Types of Volcanoes:

Based on frequency of Eruption:

Active volcanoes:

- They erupt frequently and are mostly located in the Pacific Ring of Fire, which includes New Zealand, Southeast Asia, Japan and the western coast of the Americas.
- About 90% of all earthquakes worldwide strike within this region.
- Volcanic activity is linked to the movement and collision



of tectonic plates.

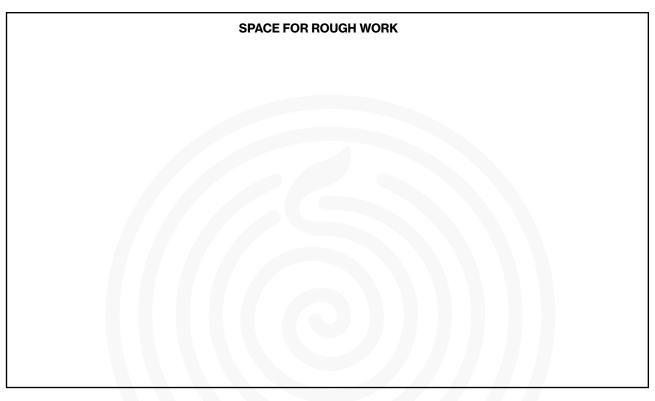
• Examples include Kilauea in Hawaii and Santa Maria in Guatemala.

Dormant Volcano:

• These are not extinct but have not erupted in recent

history. The dormant volcanoes may erupt in future.

Example: Mount Kilimanjaro, located in Tanzania, also the highest mountain in Africa, is known to be a dormant Volcano.





START YOUR JOURNEY WITH THE BEST



COME JOIN WITH US



You have to dream before your dreams can come true..

- A. P. J. ABDUL KALAM



MASTER THE NEW LEARNING MANTRA



BOOK

ONLINE

www.vedhikiasacademy.org

POLITY AND GOVERNANCE



IT'S TIME TO REVAMP THE STRUCTURE OF THE SUPREME COURT

THE NEED TO DISCLOSE POLITICAL DONATIONS

SHORTAGE OF STAFF, FINANCIAL DEPENDENCY PLAGUE LOCAL GOVERNANCE

SIGNIFICANCE OF ALL INDIA JUDICIAL SERVICE

ILO REPORT URGES COUNTRIES TO STRENGTHEN SAFETY NET



IT'S TIME TO REVAMP THE STRUCTURE OF THE SUPREME COURT

CONTEXT: The Supreme Court of India has three jurisdictions under the Constitution: original, appellate, and advisory. The Supreme Court serves as a Constitutional Court as well as a Court of Appeal. The Court sits in benches of varying sizes, as determined by the Registry on the directions of the Chief Justice of India (CJI), who is the Master of the Roster.

EVOLUTION OF PRESENT SUPREME COURT

During the colonial period, there were three Supreme Courts – Madras, Bombay and Calcutta. The Indian High Courts Act of 1861 replaced the Supreme Courts of colonial periods with High Courts for separate regions. The Government of India Act, 1935, created the Federal Court of India as an appellate body for the Privy Council and High Courts. India approved the Constitution in 1949. The Supreme Court of India was founded on January 28, 1950, under Article 124 of the Constitution, two days after India became an independent, democratic republic.

The first Supreme Court included eight judges, including the CJI. As the workload rose year after year and arrears of cases began to accumulate, Parliament increased the number of judges from eight in 1950 to 11 in 1956, 14 in 1960, 18 in 1978, 26 in 1986, 31 in 2009 and 34 in 2019.

BENCHES OF SUPREME COURT

The Constitution Benches of the Supreme Court typically comprise five, seven, or nine judges who deliberate on a specific issue related to constitutional law. Article 145(3) of the Constitution provides for the setting up of a Constitution Bench with a minimum of five judges need to sit for deciding a case involving a "substantial question of law as to the interpretation of the Constitution", or for hearing any reference under Article 143, which deals with the power of the President to consult the Court. Today's Supreme Court issues around 8-10 decisions each year through Constitution Benches of five or more judges. It serves primarily as an appeals court. Only four of the 1,263 decisions issued in 2022 were issued by a Constitution Bench.

Typically, cases before the Supreme Court are heard by Division Benches (of two judges) or full Benches (three judges) to examine a wide range of topics. Under its very broad jurisdiction, the Supreme Court hears matters between the Centre and the States, as well as between two or more States; rules on civil and criminal appeals; and provides legal and factual advice to the President. Any person can immediately petition the Supreme Court if they consider their basic rights have been infringed. At present, there are 79,813 cases pending before the 34 judges of the Supreme Court.

DISCOURSE ON A SEPARATE CONSTITUTION BENCH

The Tenth Law Commission of India in 1984 proposed that the Supreme Court be split into two divisions: the Constitutional Division and the Legal Division. The proposal stated that only issues pertaining to constitutional law would be brought to the proposed Constitutional Division.

The appeals in the Supreme Court mostly comprised matters from High Courts that are closer to the Supreme Court. Appeals from the Punjab and Haryana High Court, Allahabad High Court, and Delhi High Court formed the major chunk of matters, whereas courts far away from the Supreme Court had fewer appeals filed, due to both difficulties in accessibility and costs. The Eleventh Law Commission in 1988 recommended for setting up Regional Benches of the Supreme Court into parts to make justice more widely available at affordable costs.

The 229th Law Commission Report (2009) recommended setting up of 4 regional benches to be located in Delhi, Chennai or Hyderabad, Kolkata, and Mumbai to hear non-constitutional issues. It recommended six judges from each region at four regional benches take up appellate responsibility, with a Constitution Bench in New Delhi working on a regular basis.

The Supreme Court in Bihar Legal Support Society v. Chief Justice of India (1986) stated that it was "desirable" to establish a National Court of Appeal to entertain special leave petitions, allowing the Supreme Court to only entertain constitutional and public law-related questions.

AN OVERBURDENED COURT

The work of the Supreme Court could be split so that there is a Final Court of Appeal and a permanent Constitution Bench. This would ensure greater judicial stability and consistency by explicitly distinguishing cases filed under constitutional authority from those filed under appellate and review jurisdiction. A Constitution Bench (V. Vasanthkumar v. H.C. Bhatia) is analysing these issues and contemplating measures to protect a citizen's basic right to access the Supreme Court. Under the guidance of the CJI, there is an opportunity to address this structural gap in the Supreme Court by designating several of the court's appeal benches as regional benches.

THE NEED TO DISCLOSE POLITICAL DONATIONS

CONTEXT: Political parties in any country play an indispensable role in the democratic process. They form the government and have the responsibility under our constitution of holding the government to account. It is thus essential that the parties are adequately funded in a manner which enjoys public confidence.

The amendments made to the Representation of the People Act 1951 and other laws which provide for electoral bonds, provide complete anonymity to political donors.

REGULATING POLITICAL FUNDING

The United States of America enacted the Publicity Act, 1910 not only required disclosure of all funding of political parties and candidates, it also imposed limits on political contributions. There were also other laws which regulated these limits, and imposed limits on campaign spending. The U.S. Supreme Court in Buckley versus Valeo in 1976, not only upheld the public disclosure requirements of funding of political parties, but also upheld the limits on contributions to be received, as being constitutional. It held that to the extent that large contributions are given to secure a political quid pro quo from current and potential office holders, the integrity of the system of representative democracy is undermined.

In 2014, the European Union enacted a Regulation of the European Parliament and of the Council on the



funding of European political parties and European political foundations. Under this Regulation, there were limits set on the value of donations that parties and foundations may accept per year and per donor. While donations from natural persons under a certain value can be anonymised, all donations exceeding that value have to be disclosed. Large donations above a certain value require not just disclosure but immediate reporting to the authority. Further, political parties are also required to file annual financial statements of their revenue and expenditure, their list of donors and corresponding donations.

In the U.K., under the Political Parties, Elections and Referendums Act 2000, there are restrictions on the donations and loans a political party can accept, and requirements for the declaration of the source of the donations.

There are thus two distinct requirements that most legal regulations have for funding of political parties – complete disclosure of donors above certain minimal amounts and limits or caps on donations.

THE NEED FOR DISCLOSURE

Political parties are the pillars of representative democracy and transparent accounts are the key to preserving citizens' trust in parties and politicians, maintaining the rule of law and removing corruption in the electoral and political process. Limits on donations are imposed because unchecked large donations to political parties and their allies have the effect of bringing democracy into disrepute. The outcome of elections should not depend on which party has more money to campaign and woo, or buy voters. The separation of wealth from power is a basic condition of a democratic system.

THE ROAD AHEAD

A key element of democracy is electoral justice. Electoral justice ensures that every action, procedure and decision related to the electoral process is in line with the law and that the enjoyment of electoral rights are protected. An electoral justice system upholds the rule of law and guarantees the democratic principle of holding free, fair and genuine elections.

Electoral bonds which keep donor details undisclosed are violative of the democratic requirements of transparency and will undermine free and fair elections. Therefore, merely holding them unconstitutional is not enough.

For a healthy democracy, it is absolutely necessary that we have a law that ensures full publication of all donations made to political parties.

CONCLUSION

There is a need for a separate legislation that mandates public disclosure of the identity of donors to political parties, candidates or political foundations which are above a certain nominal limit, the immediate reporting of large donations to the election commission, mandating that political party accounts be made public and reported to the election commission, auditing of accounts of political parties by an independent authority, setting limits on funding and expenditure by political parties and mechanisms on enforcement of the law.

Therefore there is a demand to make our democracy healthy by enacting legislation that regulates political party funding and mandates public disclosure.

SHORTAGE OF STAFF, FINANCIAL DEPENDENCY PLAGUE LOCAL GOVERNANCE

CONTEXT: The report, Annual Survey of India's City-Systems (ASICS) 2023, was published by the Janaagraha Centre for Citizenship and Democracy, a non-profit institution.

Most Indian cities lack transparency and do not publish accessible civic and financial data

BACKGROUND: An annual survey of Indian cities shows that a majority of local governments are financially dependent

a majority of local governments are financially dependent on their State governments. They also have limited control over who to hire and how to distribute work. The report found that only Assam empowers its city governments to collect all key taxes. Except five States – Bihar, Jharkhand, Odisha, Meghalaya, and Rajasthan – all the others have to get approval from the State before borrowing money.

SUMMARY OF THE ANNUAL SURVEY OF INDIA'S CITY-SYSTEMS (ASICS) 2023

KEY FINDINGS:

- **Financial Dependence:** A majority of Indian city governments are financially dependent on their state governments.
- Limited Control: City governments have limited control over who to hire and how to distribute work.
- Asymmetry of Power: Megacities have more of a say over their finances than smaller cities, but their mayors do not have a five-year tenure and are not directly elected.
- Lack of Transparency: There is a lack of transparency in publishing cities' civic information, with only 11 of the 35 states/union territories enacting the Public

 Poor Staffing Levels: 35% of posts in India's municipal corporations are vacant, with the vacancy rate increasing to 41% among municipalities and 58% among town panchayats.

RELEVANT INFORMATION:

- Comparison with Other Metropolises: Indian cities have a crippling shortage of staff compared to other metropolises such as New York, London, and Johannesburg. For example, there are 5,906 city workers in New York and 2,936 in London for every one lakh population, compared to just 317 in Bengaluru, 586 in Hyderabad, and 938 in Mumbai.
- Impact on City Governance: The financial dependence, limited control, lack of transparency, and poor staffing levels of Indian city governments have a significant impact on city governance. They make it difficult for city governments to be effective and accountable to their citizens.

RECOMMENDATIONS:

The report recommends a number of measures to improve city governance in India, including:



- Empowering city governments with greater financial and administrative autonomy.
- Enhancing transparency and accountability in city governance.
- Improving staffing levels and capacity building in city governments.
- · Learning from best practices in other countries.

ADDITIONAL INFORMATION

Indian cities face a multitude of governance challenges that hinder their sustainable development and the wellbeing of their residents. These challenges can be broadly categorized into four main areas:

1) Planning and Infrastructure:

a. Inadequate Urban Planning: Many Indian cities lack comprehensive and up-to-date master plans that can guide their growth and development. This leads to unplanned urbanization, haphazard construction, and a lack of essential infrastructure.

b. Infrastructure Deficiencies: Cities struggle to provide adequate infrastructure, including water supply, sanitation, electricity, transportation, and solid waste management. This results in poor living conditions and environmental degradation.

2) Financial Constraints:

a. Limited Revenue Generation: Indian cities have limited capacity to generate their own revenue, relying heavily on grants from state and central governments. This restricts their ability to invest in infrastructure and services.

b.Inefficient Revenue Management: Weak financial management practices, such as poor tax collection and resource allocation, further strain city finances.

3) Governance Structure and Capacity:

VEDHIK

a. Fragmented Governance: The division of responsibilities among multiple agencies and overlapping jurisdictions creates inefficiencies and delays in decision-making and implementation. **b. Capacity Building Needs:** Urban local bodies often lack the skilled manpower and technical expertise to effectively manage and deliver services.

4) Citizen Engagement and Participation:

a. Limited Citizen Participation: Citizens are often not adequately consulted or involved in urban planning and decision-making processes, leading to a disconnect between their needs and the development agenda.

b. Weak Grievance Redressal Mechanisms: Citizens lack effective channels to voice their concerns and seek redressal for grievances, leading to frustration and a sense of disenfranchisement.

REMEDIAL MEASURES

Addressing these governance challenges requires a multi-pronged approach that includes:

Strengthening urban planning and regulatory frameworks: Develop comprehensive master plans, enforce building codes, and promote sustainable urban development practices.

Enhancing financial autonomy: Empower cities to generate their own revenue through property taxes, user fees, and other sources, while ensuring fiscal accountability.

Streamlining governance structures: Consolidate responsibilities, improve coordination among agencies, and devolve decision-making powers to local bodies.

Promoting citizen engagement: Establish effective mechanisms for citizen participation in planning, decision-making, and monitoring of urban development projects.

Building capacity and strengthening institutions: Provide training and resources to urban local bodies to enhance their technical, managerial, and financial capacity.

CONCLUSION:

The Annual Survey of India's City-Systems (ASICS) 2023 highlights the challenges faced by Indian city governments. By addressing these challenges, we can improve city governance and make our cities more liveable and sustainable.

+91 9383 432 123 +91 7777 875 588 0484 452 77 77

Excellence through ⁰⁴ Education & Dedication

www.vedhikiasacademy.org

"De not afraid of greatness. Some are born great, some achieve greatness, and others have greatness thrust upon them."



- WILLIAM SHAKESPEARE



Limitless cities, limited power

The charts and tables were sourced from the Annual Survey of India's City-Systems (ASICS) 2023 published by Janaagraha, a Bengaluru-based non-profit



City lights: A view of the Brihanmumbai Municipal Corporation building. ARUNANGSU ROY CHOWDHURY

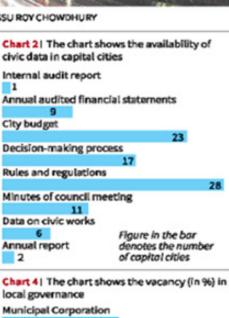
Table 1 | The table shows asymmetry of mayor/council powers across various city categories

Percentage of cities	Mega	Large	Medium	Small	Total
with a five-year mayoral tenure	38%	69%	67%	84%	83%
with a directly elected Mayor	0%	39%	33%	36%	36%
that can approve the city budget	75%	34%	40%	11%	1296
that can borrow without the prior sanction of the State	13%	16%	12%	15%	15%
that can invest without the prior sanction of the State	75%	63%	40%	42%	42%
that have complete power over their staff	0%	0%	0%	0%	0%
that can levy all key taxes	0%	0%	2%	0%	2%
Average no. of functions devolved by law (number)	11	8	13	11	9
Total population (in mn)	57.84	57.88	28.93	173.9	318.5

Mega cities (>4 million population), large cities (1-4 million), medium cities (5,00,000-1 million), small cities (<5,00,000)

Table 3 I The table shows the asymmetry of financial transparency in the capital cities of India. Figures denote % of capital cities

Type of data	Mega	Large	Medium	Small	Total
Annual audited financial statement	17%	50%	29%	23%	28%
Quarterly audited financial statement	0%	0%	0%	0%	0%
City budget	100%	100%	57%	38%	66%
Ward budget	17%	0%	0%	0%	3%
Internal audit	0%	0%	0%	8%	3%



33% Municipalities

Town Panchayats

Chart 5 | The chart shows municipal staff per lakh population in Indian and global cities

41%





INDIA'S LARGEST ONLINE IAS COACHING ACADEMY



SIGNIFICANCE OF ALL INDIA JUDICIAL SERVICE

CONTEXT: President Droupadi Murmu's suggestion of establishing an All-India Judicial Service (AIJS) to broaden the judiciary's recruitment base and attract talented individuals from various backgrounds has sparked discussions regarding its practicality and potential impact.

BACKGROUND: The demand for an All-India Judicial Service (AIJS) has been a long-standing one, dating back to the pre-independence era. Several committees and commissions have recommended the creation of an AIJS, highlighting its potential benefits for the Indian judiciary. Significant among them are

- 1958 Law Commission Report: Recommended the creation of an AIJS, emphasizing its potential to enhance the quality and independence of the judiciary.
- 2002 Justice Bhagwati Committee Report: Reiterated the need for an AIJS, suggesting a centralized selection process and a uniform cadre of judges.
- **2006 Parliamentary Standing Committee Report:** Supported the creation of an AIJS, proposing a draft bill and outlining its potential benefits.
- **2017 Justice A.K. Sikri Commission Report:** Stressed the importance of an AIJS in strengthening judicial independence and ensuring a diverse judiciary.

MAJOR ISSUES WITH THE CREATION OF ALL INDIA JUDICIAL SERVICES:

1. Impact on Federalism and State Autonomy: The establishment of an AIJS could potentially undermine the existing federal structure of the Indian judiciary, which grants states a significant role in judicial recruitment and administration. This could raise concerns about the balance of power between the central government and the states.

2. Integration of Existing Judicial Officers: Incorporating existing judicial officers into an AIJS framework could pose administrative and logistical challenges. Ensuring a smooth transition and maintaining the seniority and experience of current judges would be crucial.

3. Selection and Recruitment Process: Designing a fair and transparent selection process for the AIJS would be essential to maintain the integrity and meritocracy of the judiciary. The process should be rigorous, unbiased, and accessible to candidates from diverse backgrounds.

4. Resource Allocation and Infrastructure: Implementing an AIJS would require significant resource allocation, including funding for training, infrastructure, and administrative support. Ensuring adequate resources wouldbe crucial for the effective functioning of the AIJS.

5. Balancing Diversity and Merit: Achieving a balance between diversity and merit in the AIJS recruitment process would be challenging. While ensuring representation from different backgrounds is important, maintaining high standards of merit and competence is equally crucial for the quality of the judiciary.

6. Public Perception and Acceptance: Gaining public acceptance and trust for the AIJS would be essential. Addressing concerns about the potential impact on regional representation and the impartiality of the judiciary would be important to secure public support.

7. Constitutional Amendments: Establishing an AIJS may require amendments to the Constitution of India,(A312) which could lead to a complex and time-consuming

process. Building consensus and obtaining the necessary parliamentary approvals would be challenging.

8. Impact on Judicial Independence: While the AIJS aims to strengthen judicial independence, it is crucial to ensure that the centralized structure does not compromise the autonomy of individual judges. Safeguarding judicial independence would be paramount.

9. Harmonizing State Judicial Laws: Aligning state-level judicial laws and procedures with the AIJS framework could be challenging. Ensuring uniformity and consistency across the country would be essential for the effective functioning of the AIJS.

10. Balancing Judicial Workload and AIJS Requirements: Managing the additional workload associated with the AIJS implementation, such as recruitment and training, without compromising the day-to-day functioning of the judiciary would require careful planning and resource management.

11. Lack of Consensus

a) Historical Discussions: The idea of AIJS has been discussed in the past and has been part of policy discussions in the Union government.

b) Lack of Consensus: Despite its consideration, there is no consensus on the proposal, with only two High Courts supporting the idea and 13 expressing opposition.

12. Diversity and Recruitment Process

a) Current Recruitment System: The existing system, wherein district judges are recruited through High Courts and other judicial officers through public service commissions, is seen as more conducive to ensuring diversity.

b) Reservation Possibility: The current system allows for reservations and a nuanced understanding of local practices and conditions, which may be challenging in a centralized AIJS.

13. Challenges in Legal Education

a) Varied Standards and Curriculums: The quality and standards of legal education vary across India, making it difficult to establish a uniform national examination for judicial recruitment. This disparity in educational backgrounds among aspiring judges poses a challenge in ensuring a consistent level of competency and preparedness for the role.

b) Emphasis on Practical Experience: Practicing lawyers often prioritize practical experience over academic excellence when considering a career in the judicial service. This preference reflects the importance of real-world exposure and hands-on legal training in preparing individuals for the demands of judicial work. The current focus on academic achievements in legal education may not adequately equip aspiring judges with the practical skills and knowledge they need to effectively navigate the intricacies of the legal system.

SIGNIFICANCE OF ALL INDIA JUDICIAL SERVICES

The proposal for an All-India Judicial Service



(AIJS) holds significant potential to transform the Indian judiciary, making it more diverse, efficient, and responsive to the needs of all citizens.:

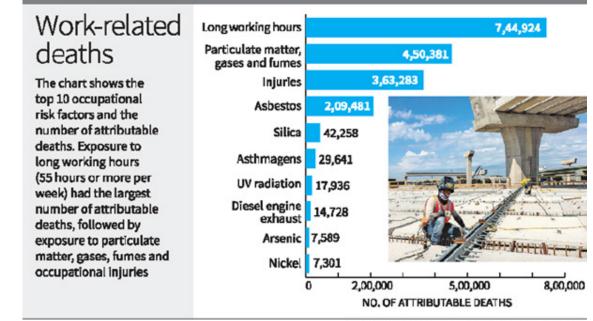
- Enhanced Judicial Quality: The AIJS would introduce a uniform and rigorous selection process for judges, ensuring that only the most qualified and meritorious individuals are recruited into the judiciary. This would elevate the overall quality of the judicial system and strengthen its ability to dispense justice effectively.
- Increased Diversity: The AIJS would promote greater representation of diverse backgrounds and perspectives within the judiciary. By drawing talent from across India, it would ensure that the judicial system reflects the country's demographic diversity, fostering greater inclusivity and understanding of the varied experiences of Indian citizens.
- **Improved Efficiency:** The AIJS would streamline the process of judicial recruitment and promotion, leading to a more efficient and responsive judiciary. A centralized system would eliminate disparities in selection criteria and ensure a consistent flow of qualified judges across the country.
- **National Perspective:** The AIJS would foster a national perspective among judges, reducing regional biases and promoting a more uniform application of legal principles. This would strengthen the unity and cohesion of the Indian judicial system.
- **Career Advancement:** The AIJS would provide a structured career path for judges, enhancing their professional development and motivation. This would lead to a more dedicated and committed judiciary.
- Attracting Talent: The AIJS would attract the brightest legal minds from across India, increasing the overall talent pool for the judiciary. This would ensure that the judiciary remains at the forefront of legal expertise and innovation.

- **Promoting Social Justice:** The AIJS would contribute to social justice by ensuring that individuals from diverse backgrounds have equal opportunities to serve as judges. This would promote a more equitable and inclusive judicial system.
- **Strengthening Democracy:** An independent and impartial judiciary is essential for a vibrant democracy. The AIJS would strengthen the judiciary's independence and impartiality, further reinforcing India's democratic framework.
- Addressing the Shortage of Judges: The Indian judiciary faces a significant shortage of judges, leading to delays in the delivery of justice. The AIJS would create a larger pool of qualified judges, helping to alleviate this shortage.
- Enhancing Diversity in Higher Judiciary: The representation of women and minorities in the higher judiciary remains low. The AIJS could help to address this disparity by ensuring that a more diverse range of individuals are recruited into the judiciary.
- **Promoting Judicial Integrity:** The AIJS would introduce stricter selection criteria and a more rigorous code of conduct for judges, helping to maintain the integrity of the judiciary.

CONCLUSION: The potential benefits of an All-India Judicial Service (AIJS) are significant and could transform the Indian judiciary into a more diverse, efficient, and responsive institution. While challenges exist in its implementation, such as concerns about federalism and harmonizing state judicial laws, the potential gains outweigh these concerns. Careful planning, resource allocation, and public engagement will be crucial to ensure the successful implementation of an AIJS. By addressing the challenges and capitalizing on the potential benefits, the AIJS could play a transformative role in strengthening India's judicial system and upholding the rule of law.

ILO REPORT URGES COUNTRIES TO STRENGTHEN SAFETY NET

CONTEXT: President Droupadi Murmu's suggestion of establishing an All-India Judicial Service (AIJS) to broaden the judiciary's recruitment base and attract talented individuals from various backgrounds has sparked discussions regarding its practicality and potential impact.



SOURCE: INTERNATIONAL LABOUR ORGANIZATION



CONTEXT: A new report "A Call for safer and healthier working environments" prepared by the International Labour Organization (ILO) cited that nearly 30 lakh workers die every year globally owing to work-related accidents and diseases. More than 63% of these deaths are reported from the Asia-Pacific region.

The report, "A Call for safer and healthier working environments", will be discussed at the 23rd World Congress on Safety and Health at Work, one of the largest international conferences on this subject, which began in Sydney on Monday. The report said mining and quarrying, construction, and utilities sectors were the three most hazardous sectors globally.

The Director-General of the Employees' State Insurance Corporation, Rajendra Kumar, is representing India at the conference.

ILO CONVENTIONS

The report said that so far 79 out of the 187 member countries have ratified the ILO Occupational Safety and Health Convention (No. 155), while 62 countries have ratified the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187). India has not ratified both the conventions.

It added that a majority of these work-related deaths, 26 lakh, was attributed to work-related diseases, while work accidents resulted in 3.3 lakh deaths. The diseases that caused most work-related deaths were circulatory diseases, malignant neoplasms and respiratory diseases. The report said that the rate of trachea, bronchus, and lung cancers attributable to occupational exposure to chromium doubled between 2000 and 2016. Mesothelioma, attributable to asbestos exposure, has risen by 40%. The rate of non-melanoma skin cancer increased by over 37% between 2000 and 2020.

On the other hand, deaths due to exposure to asthmagens and particulate matter, gases, and fumes decreased by over 20 %. The report also recommended five categories of "Fundamental Principles and Rights at Work" for ensuring safety and health at work. These are freedom of association and the effective recognition of the right to collective bargaining, elimination of all forms of forced or compulsory labour, abolition of child labour, elimination of discrimination in respect of employment and occupation, and a safe and healthy working environment.

RECOMMENDATIONS

The report recommends five categories of "Fundamental Principles and Rights at Work" to ensure safety and health at work. These are,

- Freedom of association and the effective recognition of the right to collective bargaining
- Elimination of all forms of forced or compulsory labour
- Abolition of child labour
- Elimination of discrimination in respect of employment and occupation
- A safe and healthy working environment

CONCLUSION

The report by the International Labour Organization (ILO) highlights the urgent need for creating safer and healthier working environments worldwide. The alarming number of work-related deaths, particularly in the Asia-Pacific region, calls for immediate action. The report's recommendations, including the ratification of relevant ILO conventions and implementation of fundamental principles and rights at work, provide a roadmap for addressing this critical issue. By prioritizing worker safety and health, we can create a more sustainable and equitable global workforce.



- WILLIAM SHAKESPEARE

28



START YOUR JOURNEY WITH THE BEST

INDIA'S TOP MOST CIVIL SERVANTS FOR COACHING

Head Office: Vedhik IAS Academy Mercy Estate, MG Road, Ravipuram, Ernakulam-682 015, Corporate office: Vedhik IAS Academy Samkalp Bhawan, Plot No.15, Sector 4, Rama Krishna Puram, New Delhi,Delhi-110022 Regional office Vedhik IAS Academy 202, Raheja Chambers, 12, Museum Road. Bangalore -560001. Karnataka, India.

www.vedhikiasacademy.org

GCC Office:

Bobscoedu, Bobsco Trading & Contracting Co. W. L . L Office 22, Dream Tower 1, Road: 2701, Adliya, Kingdom of Bahrain www.bobscoedu.com

INTERNATIONAL RELATIONS



UNDERSTANDING THE U.S.-ISRAEL RELATIONS THREATS TO GLOBAL PEACE AND SECURITY THE CHALLENGE OF MARITIME SECURITY IN THE GLOBAL SOUTH AKHAURA-AGARTALA RAIL LINK INAUGURATED

111



UNDERSTANDING THE U.S.-ISRAEL RELATIONS

CONTEXT: Within days of the October 7 attack by Hamas inside Israel, killing at least 1,400 people, President Joe Biden travelled to Israel to declare solidarity with the Jewish state. Mr. Biden described Hamas as "unadulterated evil" and stated that America "stands with Israel".

BACKGROUND

Since the October 7 attack, Israel has been bombing Gaza relentlessly and is currently carrying out a ground invasion in which at least 8,700 Palestinians have already been killed. The U.S. has been careful not to criticise Israel even in the face of the latter's disproportionate attack on the tiny enclave of 2.3 million people. The U.S. has also vetoed a UN Security Council resolution that called for a humanitarian pause to Israel's attacks and voted against a resolution at the UN General Assembly calling for a humanitarian truce, which was passed with a landslide. This is not surprising given the history of the U.S.-Israel relations. Barring minor personality clashes between leaders, the U.S. has stood solidly behind Israel, irrespective of the latter's actions, at least since 1967.

WHAT ARE ORIGINS OF U.S.-ISRAEL TIES?

The United States and Israel have had a close and enduring relationship since the founding of the State of Israel in 1948. The United States was the first country to recognize Israel, and the two countries have shared a commitment to democracy, economic prosperity, and regional security ever since.

The US-Israel relationship has evolved over time, but it has remained strong throughout. In the early years, the United States provided Israel with military and economic assistance to help it survive and thrive. In recent decades, the relationship has matured into a strategic partnership, with the two countries working together on a range of issues, including counterterrorism, cyber security, and regional development.

The US-Israel relationship is based on a number of shared values and interests. Both countries are committed to democracy and the rule of law. They also share a strong economic relationship, with bilateral trade in goods and services totaling nearly \$50 billion annually. In addition, the United States and Israel cooperate closely on security matters, working together to counter threats to their shared interests in the Middle East and beyond.

While the US-Israel relationship has been strong for decades, there have been some periods of tension. For example, the United States has sometimes been critical of Israel's settlement policy in the West Bank, and the two countries have disagreed on how to best address the Israeli-Palestinian conflict. However, these disagreements have not undermined the overall strength of the relationship.

The US-Israel relationship is one of the most important bilateral relationships in the world. It is a critical pillar of US foreign policy in the Middle East, and it is a vital source of security and stability for both countries.

Here is a timeline of some of the key events in the history of US-Israel relations:

- 1. 1948: The United States is the first country to recognize Israel as an independent state.
- 2. 1950: The United States and Israel sign a Mutual Security Agreement, providing Israel with military and economic assistance.
- 3. 1956: The United States pressures Israel to withdraw

from the Sinai Peninsula and Gaza Strip after the Suez Crisis.

- 4. 1967: The United States supports Israel in the Six-Day War, but also urges it to withdraw from newly occupied territories.
- 5. 1973: The United States provides airlifts of military supplies to Israel during the Yom Kippur War.
- 6. 1979: The United States and Israel sign the Camp David Accords, which lead to a peace treaty between Israel and Egypt.
- 7. 1985: The United States and Israel sign a Free Trade Agreement.
- 8. 1992: The United States co-sponsors the Madrid Peace Conference, which launches a new round of Israeli-Palestinian peace negotiations.
- 9. 1993: The United States brokers the Oslo Accords, which establish a framework for Palestinian self-government in the West Bank and Gaza Strip.
- 10. 2003: The United States supports Israel in the Iraq War.
- 11. 2009: The United States and Israel sign a Memorandum of Understanding on Security Cooperation, which provides Israel with \$3 billion in annual military aid.
- 12. 2017: The United States moves its embassy in Israel to Jerusalem, recognizing it as the capital of Israel.
- 13. 2020: The United States and Israel sign a Declaration of Strategic Partnership, reaffirming their commitment to close cooperation on a range of issues.

The US-Israel relationship continues to be strong today, and it is likely to remain so for many years to come. The two countries share a deep bond based on shared values and interests, and they are committed to working together to address the challenges of the 21st century.

WHAT IS THE CURRENT STATUS OF THE U.S.-ISRAEL TIES?

The current status of US-Israel ties is very strong. The Biden administration has reaffirmed its commitment to Israel's security and well-being, and the two countries continue to cooperate closely on a range of issues, including counterterrorism, cybersecurity, and regional development. In recent months, the Biden administration has taken a number of steps to strengthen the US-Israel relationship, including:

- 1. Providing Israel with \$3.8 billion in annual military aid
- 2. Reversing the Trump administration's decision to withdraw from the Iran nuclear deal
- 3. Working with Israel to normalize relations between Israel and Arab countries
- 4. Reaffirming the US commitment to a two-state solution to the Israeli-Palestinian conflict



The Biden administration has also been supportive of Israel's right to self-defense, and it has condemned Hamas rocket attacks on Israel. In addition, the Biden administration has worked with Israel to promote regional stability and cooperation.

The US-Israel relationship is one of the most important bilateral relationships in the world, and it is likely to remain so for many years to come. The two countries share a deep bond based on shared values and interests, and they are committed to working together to address the challenges of the 21st century.

Here are some specific examples of the strong US-Israel ties in 2023:

- 1. In January, US Secretary of State Antony Blinken visited Israel and reaffirmed the Biden administration's commitment to Israel's security.
- 2. In February, the US and Israel signed a Memorandum of Understanding on Cyber security Cooperation, expanding their cooperation on cybersecurity issues.
- 3. In March, the US and Israel held a joint military exercise, Juniper Oak 2023, which was the largest ever joint exercise between the two countries.
- 4. 4.In April, the US and Israel signed a Memorandum of Understanding on Energy Cooperation, expanding their cooperation on energy research and development.
- 5. In May, the US and Israel held a joint Strategic Dialogue, discussing a range of issues, including security, diplomacy, and economics.

The US-Israel relationship is multifaceted and complex, but it is clear that the two countries are close allies and partners. The Biden administration has reaffirmed its commitment to the US-Israel relationship, and the two countries continue to work together on a range of important issues.

WHY DOES THE U.S. ALWAYS BACK ISRAEL?

There are a number of reasons why the United States has consistently backed Israel since its founding in 1948.

1. Shared values: The United States and Israel share a deep commitment to democracy, human rights, and

the rule of law. These shared values form a strong foundation for the relationship between the two countries.

- 2. Strategic interests: The United States and Israel have a number of shared strategic interests in the Middle East, including countering terrorism, promoting regional stability, and preventing the spread of weapons of mass destruction.
- 3. Domestic politics: There is a strong pro-Israel lobby in the United States, which has been influential in shaping US policy towards the Middle East. This lobby includes both Jewish and Christian Americans, as well as a number of powerful organizations, such as the American Israel Public Affairs Committee (AIPAC).

In addition to these general factors, there are also a number of specific reasons why the United States has backed Israel on particular issues. For example, the United States has supported Israel's right to self-defense, its opposition to terrorism, and its efforts to achieve a peace settlement with the Palestinians.

It is important to note that the US-Israel relationship is not without its critics. Some argue that the United States provides too much support to Israel, and that this support undermines the prospects for peace in the Middle East. Others argue that the United States should be more critical of Israel's human rights record, and that it should do more to pressure Israel to withdraw from the occupied territories.

Despite these criticisms, the US-Israel relationship remains strong. The two countries are close allies and partners, and they share a deep commitment to democracy, human rights, and regional security.

CONCLUSION: The United States and Israel have a long and complex relationship that is deeply rooted in shared values, strategic interests, and domestic politics. The US has consistently backed Israel since its founding, providing it with military and economic assistance and defending its right to self-defense. While there are critics who argue that the US provides too much support to Israel and should be more critical of its human rights record, the relationship between the two countries remains strong. The US-Israel relationship is one of the most important bilateral relationships in the world, and it is likely to remain so for many years to come.

THREATS TO GLOBAL PEACE AND SECURITY

CONTEXT: The 21st century has witnessed a surge in global conflict, instability, and chaos, fueled by power struggles across Europe, Asia, Africa, and the Americas. Several nations have played a role in perpetuating this instability, leaving much of the world ensnared in a perpetual state of tension and crisis.

BACKGROUND: The ongoing Russian invasion of Ukraine, launched in 2022, has plunged the world into a state of geopolitical turmoil, with no clear path to a resolution in sight. The escalating tensions raise the specter of a wider conflict, intensifying with each passing month.

A new front has emerged in the long-standing Israeli-Palestinian conflict, with recent clashes between Israel and Hamas, a militant Palestinian group. Supported by the West, this conflict has the potential to escalate into a full-blown regional war, reigniting decades of simmering tensions. Previous attempts at peace, such as the Camp David Accords and the Oslo Accords, have unfortunately crumbled.

The United States' significant naval deployments in response to the Israel-Hamas tensions could draw Iran

and its allied militant groups, like Hezbollah, into the fray. This involvement could dramatically alter the trajectory of the conflict, leading to unforeseeable consequences.

RISING GREAT POWER TENSIONS

- The Indo-Pacific region is a breeding ground for potential large-scale conflicts, with the United States and China directly involved. This region is already a hotbed of strategic competition among major powers.
- The United States and China's interests in the Indo-Pacific region are largely incompatible, leaving little room for cooperation. Both nations are actively expanding the scope of their rivalry.
- The United States is buoyed by its perceived technological edge over China, fueled by China's



economic slowdown and restricted access to advanced Western technology.

- China is pursuing two seemingly contradictory goals: dismantling the U.S.-led world order while establishing its own dominant sphere of influence.
- Taiwan, a key source of tension between the two powers, is not receiving the attention it warrants.
- The West's current approach of replicating its Ukraine strategy against Russia in the Indo-Pacific is misguided, failing to account for the stark differences between the European and Asian geopolitical landscapes.
- Asia lacks a robust military alliance like NATO, relying instead on loose security arrangements like AUKUS and the Quad to counter China's growing ambitions.
- However, few Asian nations are prepared for a military confrontation with China.

GLOBAL TERRORISM AND EXTREMISM

 On 9/11, al-Qaeda attacked the Twin Towers, giving terrorism a new dimension. This was followed by other major terrorist groups like ISIS, Lashkar-e-Taiba, Boko Haram, and Hamas against Israel. These groups pose ongoing dangers.

EMERGING RISKS AND VULNERABILITIES

The increasing reliance on digital technology has amplified the risks posed by artificial intelligence (AI) and cyber threats. Generative AI, in particular, has the potential to exacerbate societal divisions and manipulate reality.

- The application of AI in military and security domains raises serious concerns due to vulnerabilities such as data poisoning, backdoors, and evasion attacks.
- The exponential surge in cyber attacks, with over 5.5 trillion recorded worldwide in 2021, underscores the escalating threat posed by cyber warfare in the future.
- Quantum computing's exceptional data processing capabilities are revolutionizing various industries;

however, its integration with AI simulations introduces inherent risks.

- As humanity progresses, the importance of global health becomes increasingly apparent. The COVID-19 pandemic serves as a stark reminder of the potential for devastating epidemics to become more prevalent.
- Climate change and its associated health consequences are projected to be among the most significant global threats in the coming years.

CONCLUSION

The 21st century has been a tumultuous era marked by escalating conflicts, geopolitical tensions, and emerging threats that pose a significant risk to global peace and security. From the ongoing Russian invasion of Ukraine to the simmering Israeli-Palestinian conflict and the rising tensions in the Indo-Pacific region, the world is facing a multitude of challenges that demand urgent attention and concerted action.

The ongoing conflicts and tensions underscore the need for effective diplomacy, dialogue, and international cooperation to foster a more peaceful and secure world. Addressing the root causes of these conflicts and tensions is crucial to de-escalate tensions and prevent further escalation.

Emerging threats such as artificial intelligence (AI), cyber warfare, quantum computing, and climate change are transforming the global landscape and introducing new dimensions to security concerns. These threats require proactive measures to mitigate their risks and ensure responsible development and utilization of these technologies.

As humanity faces these complex and interconnected challenges, it is imperative to embrace a spirit of global cooperation, shared responsibility, and a commitment to peaceful conflict resolution. Strengthening international institutions, promoting dialogue and understanding, and investing in sustainable development are essential steps towards building a more secure and prosperous future for all.

THE CHALLENGE OF MARITIME SECURITY IN THE GLOBAL SOUTH

CONTEXT: The complex nature of maritime security challenges in the Global South necessitates dynamic and adaptable strategies to effectively address the evolving threats.

BACKGROUND:

- Charles Darwin argued that the key to human survival is not humankind's innate superiority but its natural adaptability.
- He felt that it was not the strongest or most intelligent species that survived, but the one with the capacity to adapt and adjust to the changing environment.
- This notion of **resilient adaptability** has withstood the test of time and is essential for human progress.
- It is especially important in the maritime domain, where nations and maritime security organizations must be adaptable to address the evolving challenges of piracy, illegal fishing, cyber-attacks, and other threats.

NEW THREATS IN THE MARITIME DOMAIN

- Emerging Hard Security Challenges: Adaptation and Collaboration
- The maritime domain is witnessing a surge of hard security challenges, characterized by unconventional tactics like grey-zone warfare, land attack missiles, and combat drones. While traditional military responses may not be fully equipped to counter these evolving threats, the Global South is also grappling with a range of unconventional security challenges, encompassing illegal fishing, natural disasters, marine pollution, human and drug trafficking, and the impact of climate change.

In response to evolving maritime challenges, Ukraine and China are employing unconventional tactics, including asymmetric warfare strategies and improvised methods, to assert their dominance in the Black Sea and South China Sea, respectively.

Addressing Multifaceted Challenges: Beyond Traditional Military Means

These multifaceted challenges necessitate



a comprehensive approach that extends beyond traditional military means and embraces cooperation on environmental, economic, and human security issues. The interconnectedness of these challenges and their disproportionate impact on less developed states in the Global South underscore the urgency for a collaborative and sustainable approach to maritime governance.

Enhancing Law Enforcement Capabilities and Strengthening Security Coordination

 Littoral states in Asia and Africa must bolster their law enforcement capabilities and strengthen security coordination to effectively combat maritime threats. Moreover, addressing the root causes of vulnerability, such as rising sea levels, marine pollution, climate change, and natural disasters, is crucial for long-term maritime security.

Acknowledging the Global South's Concerns: Inclusive Maritime Governance

• The Global South's concerns regarding the zero-sum competition among powerful nations in the Indo-Pacific and the need for inclusive maritime governance must be acknowledged and addressed. Sustainable development goals in the littorals must be realized, and the voices of littoral states in Asia, Africa, and the Southern Pacific must be heard and incorporated into maritime security solutions.

EMERGING THREATS IN MARITIME DOMAIN

Beyond Hard Power: A Developmental Approach to Maritime Security

Maritime security is not merely about military might and law enforcement; it also encompasses economic prosperity, environmental sustainability, and the well-being of coastal communities. India's Maritime Vision 2030 and Bangladesh's inaugural Indo-Pacific policy document underscore this developmental approach, emphasizing the importance of maritime trade, infrastructure development, and resource management.

Tackling Illegal Fishing: A Collective Effort

However, addressing maritime challenges requires concerted action from all stakeholders. Illegal, unreported, and unregulated (IUU) fishing remains a significant threat, particularly in Asia and Africa. Lenient regulations, lax enforcement, and harmful subsidies have exacerbated the problem, leading to overfishing and environmental damage.

India's Indo-Pacific Oceans Initiative: A Cooperative Approach

India's Indo-Pacific Oceans Initiative (IPOI) offers a comprehensive framework for addressing maritime challenges. The initiative's seven pillars, encompassing maritime ecology, marine resources, capacity building, disaster risk reduction, and maritime connectivity, emphasize the need for collective solutions and economic interdependence among Indo-Pacific nations.

LACK OF CONSENSES

Implementing a collaborative maritime security strategy is challenging due to the need for improved interoperability, intelligence sharing, and agreement on a regional rules-based order. This requires states to adapt their security operations and regulatory frameworks to align with international law, which can be unappealing for those prioritizing sovereignty and strategic independence.

Despite advocating for a cooperative security architecture, many littoral states in the Global South are hesitant to pursue concrete solutions to maritime challenges. This highlights the paradox of non-traditional maritime security, where the collective issues faced by developing nations and their need for creative solutions conflict with their sense of political and strategic autonomy.

INDIA'S MARITIME VISION 2030

India's Maritime Vision 2030 is a comprehensive blueprint for the development of the maritime sector in India over the next decade. It outlines a vision of India as a "leading maritime power" with a secure and prosperous maritime domain. The vision is based on three pillars:

1. Enhance Coastal Security: To strengthen India's coastal security capabilities, the vision aims to:

- Develop a robust maritime infrastructure, including modern ports, shipyards, and inland waterways.
- Enhance maritime surveillance and intelligence capabilities.
- Strengthen maritime law enforcement and response capabilities.

2. Develop Blue Economy: To harness the potential of the blue economy, the vision aims to:

- Promote sustainable fishing practices and marine resource management.
- Develop marine tourism and offshore renewable energy.
- Enhance maritime connectivity and trade.

3. Enhance Maritime Cooperation: To strengthen India's maritime partnerships, the vision aims to:

- Foster regional cooperation in the Indo-Pacific region.
- Promote multilateral cooperation on maritime issues.
- Contribute to global maritime security and governance.

The Maritime Vision 2030 is a bold and ambitious plan that has the potential to transform India's maritime sector. The vision is aligned with India's national priorities of economic development, security, and global engagement. It is also consistent with the United Nations Sustainable Development Goals (SDGs), particularly SDG 14 on Life Below Water.

The implementation of the Maritime Vision 2030 is a challenging task that will require close coordination between the central government, state governments, and the private sector. However, the potential benefits of the vision are significant, and the government is committed to its successful implementation.

KEY EXPECTED OUTCOMES OF THE MARITIME VISION 2030:

- Increased maritime security and safety.
- Enhanced maritime infrastructure and connectivity.
- Sustainable development of the blue economy.
- Stronger maritime partnerships and cooperation.



Increased contribution to global maritime security and governance.

The Maritime Vision 2030 is a significant step forward in India's efforts to become a leading maritime power. The vision has the potential to transform India's maritime sector, promote sustainable development, and enhance India's role in the world. **CONCLUSION**: The maritime domain is facing a surge of unconventional security challenges that require adaptable strategies. Collaboration and addressing the root causes of vulnerability are crucial for long-term maritime security. Inclusive maritime governance that acknowledges the concerns of the Global South is essential. India's Maritime Vision 2030 outlines a developmental approach to maritime security, emphasizing economic prosperity, environmental sustainability, and the well-being of coastal communities.

AKHAURA-AGARTALA RAIL LINK INAUGURATED



CONTEXT: Prime Minister Narendra Modi and his Bangladesh counterpart Sheikh Hasina inaugurated 12.24 km Akhaura-Agartala rail link, with a 6.78-km dual gauge line in Bangladesh and 5.46 km in Tripura.

The project was revived in 2010, when Prime Minister Manmohan Singh signed an agreement to rebuild the connection during Ms. Hasina's visit to New Delhi.

STORY SO FAR

Bangladesh and northeast India will re-establish rail connectivity through Tripura, after a gap of nearly seven and a half decades. One of the main drivers behind the initial construction of the junction in the late 19th century was the demand from Assam's tea industry, which wanted a connection to the Chittagong port.

This rail link is being seen as a first step to connect

Tripura to Kolkata through Bangladesh. At present, trains to Agartala must run through a longer route via Guwahati and Jalpaiguri stations. The link will significantly reduce the time and distance needed to reach Tripura, southern Assam, and Mizoram from Kolkata. It will also help boost India-Bangladesh trade in agriculture products, tea, sugar, construction items, iron and steel, consumer items, besides people-to-people ties. The Akhaura-Agartala Cross-Border Rail Link project was supported by a grant aid of ₹ 392.52 crore extended to Bangladesh by the Indian government.





INDIA'S LARGEST ONLINE IAS COACHING ACADEMY



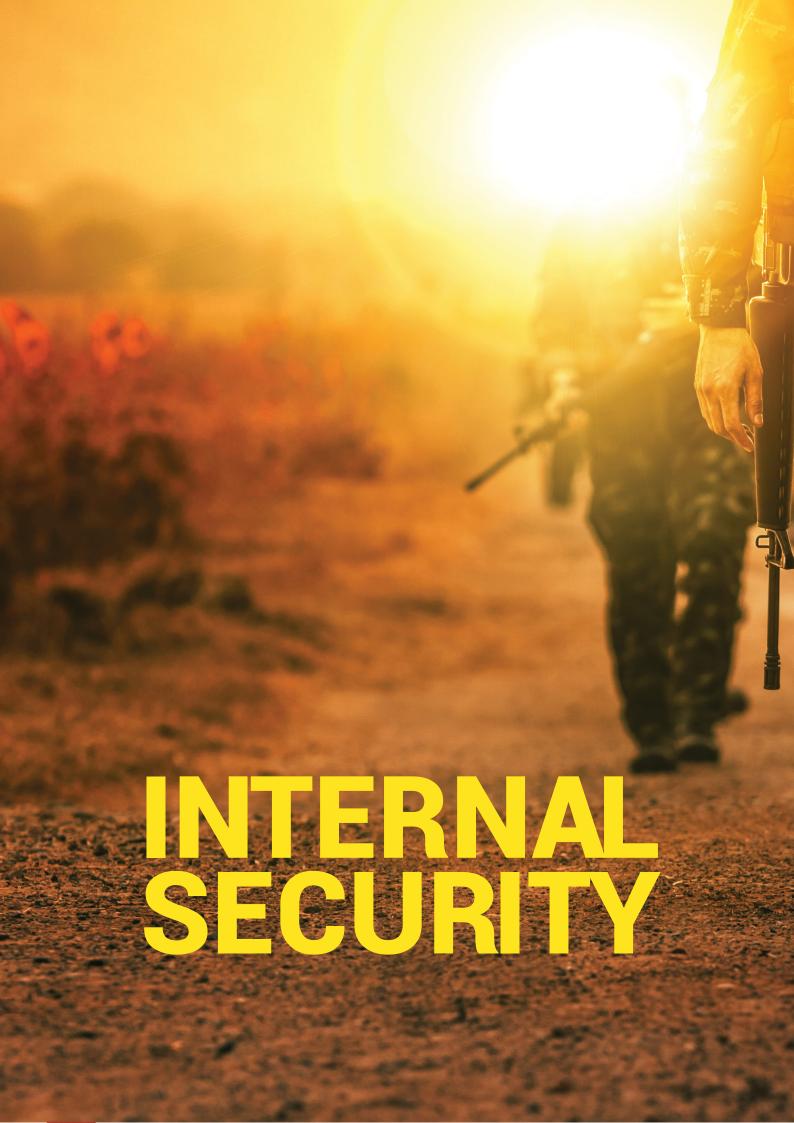
ATIVESE

1 STOP SOLUTION

EDHIK

FOR YOUR UPSC EXAM PREPARATION

www.vedhikiasacademy.org





INS IMPHAL

CYBERSECURITY: NAVIGATING THE CURRENCY DEMAND PARADOX UNIFORM CYBER SECURITY STANDARDS CERT-IN EXEMPTED FROM RTI JOINT MILITARY EXERCISE MITRA SHAKTI-2023

PRALAY TACTICAL BALLISTIC MISSILE



INS IMPHAL

The crest of Yard 12706 (Imphal) adorned with the Kangla Palace and 'Kangla-Sa,' symbolizes the historical and cultural significance of Manipur's contribution to India's independence, sovereignty, and security. Built by Mazagon Dock Shipbuilders Limited (MDL), INS Manipuris the third among the four Project 15B stealth guided missile destroyers with a displacement of 7,400 tons and an overall length of 164 meters represents a blend of advanced technology and indigenous craftsmanship.

ADVANCED WEAPONRY AND SENSORS

Powered by Combined Gas and Gas (COGAG) propulsion, it can achieve speeds exceeding 30 knots (56 km/ hr) and boasts of state-of-the-art weapons and sensors, including surface-to-air missiles, anti-ship missiles, and torpedoes. The ship's high indigenous content, approximately 75 %, showcases the prowess of Indian manufacturers in contributing to its construction.

The keel of Imphal was laid on May 19, 2017, and the ship was launched into the water on April 20, 2019. Maiden sea trials commenced on April 28, 2023, and the ship underwent a comprehensive schedule of trials, leading to its record-breaking delivery within six months. As part of pre-commissioning trials, Imphal successfully fired an Extended Range BrahMos missile, highlighting its operational capabilities.



CYBERSECURITY: NAVIGATING THE CURRENCY DEMAND PARADOX

The Reserve Bank highlighted the importance of cybersecurity, customer protection, and cost-effectiveness in sustaining the surge in digital payments catalyzed by the Covid-19 pandemic in a recent paper titled 'Cash versus Digital Payment Transactions in India: Decoding the Currency Demand Paradox'

The paper notes a decline in the transactional use of cash, with digital payment methods gradually replacing cash transactions. While the role of cash as a store of value persists, the shift towards digital modes of payment is evident. The Covid-19 pandemic has played a role in accelerating this transition.

The pandemic prompted a temporary increase in currency demand in India. This rise was primarily attributed to precautionary measures and the perception of cash as a store of value during uncertain times.

SUSTAINING MOMENTUM IN DIGITAL PAYMENTS

The paper emphasizes concerted efforts on

various fronts to maintain the momentum towards digital payments initiated by the pandemic.

Cost-Effectiveness: Ensuring the costeffectiveness of digital payment modes and relevant acceptance infrastructure is crucial. This involves considering both the demand side (consumers) and the supply side (merchants and intermediaries).

Universal Access: Efforts should be directed towards ensuring universal access to key enablers, such as smartphones and internet connectivity, to facilitate broader participation in the digital payment ecosystem.

Acknowledging the critical role of cybersecurity and customer protection, the paper underscores their importance in building and maintaining trust in digital transactions. As more individuals and businesses engage in digital payments, safeguarding against cyber threats and ensuring customer protection become paramount.



You have to dream before your dreams can come true.. - a. p. j. abdul kalam



UNIFORM CYBER SECURITY STANDARDS

The Union Ministry of Road Transport and Highways (MoRTH) has introduced a draft titled 'Approval of Vehicles with Regards to Cyber Security and Cyber Security Management System,' that called for uniform Cyber Security and Management Systems (CSMS) provisions for specific categories of four-wheelers, including both passenger and commercial vehicles. The aim is to safeguard these vehicles and their functions from potential cyber threats.

Draft report:

- 1. Vehicle manufacturers or their accredited representatives must
 - Submit applications for approval of vehicle types concerning cyber security to ensure adherence to standardized cyber security measures.
 - mplement suitable and proportional measures to secure dedicated environments on vehicle types for the storage and execution of aftermarket

CERT-IN EXEMPTED FROM RTI

The Central government has recently included the Computer Emergency Response Team (CERT-In) in the list of organizations exempted from the Right to Information Act (RTI), 2005.

BACKGROUND: The Second Schedule of the RTI Act was last amended in 2016, with the addition of the Strategic Forces Command. Other organizations under the Ministry of Defence, such as the Defence Research and Development Organisation and Border Roads Development Board, are also listed in the Second Schedule.

BACKGROUND: The Cyber Emergency Response Team -India (CERT-In) was established in 2004, functioning under the Department of Information Technology. The Cyber Emergency Response Team - India (CERT-In) is mandated under the IT Amendment Act, 2008 to serve as the national agency in charge of cyber security. Since 2012, DG of CERT-In is called the National Cyber Security Coordinator (NCSC).

CURRENT ISSUE: The Department of Personnel & Training (DoPT) reviewed a proposal from the Union Ministry of Electronics and Information Technology (MEiTy) to include CERT-in in the Schedule II to the RTI Act, 2005 which deals with exempted organisations like the CBI and the BSF.

"The purpose of the CERT-In is, to become the nation's most trusted referral agency of the Indian Community for responding to computer security incidents as and when they occur"

- CHARTER

"To enhance the security of India's Communications and Information Infrastructure through proactive action and effective collaboration"

- MISSION

"The CERT-In's constituency is the Indian Cyber-community"

- CONSTITUENCY

MANDATE:

1. Improve visibility of integrity of ICT products and

software, services, applications, or data to ensure cyber security.

- 2. Focuses on the approval of vehicles equipped with Cyber Security and Management Systems (CSMS) to establish uniform provisions for CSMS integrated into motor vehicles falling under categories M and N.
- 3. Acknowledges not to override existing standards or regional and national legislations governing authorized access to vehicle data, functions, and resources, respecting national and regional privacy laws pertaining to the protection of personal data.

The draft report clarifies that cybersecurity pertains to safeguarding road vehicles and their functions from cyber threats, particularly those targeting electrical or electronic components. CSMS, on the other hand, refers to a systematic risk-based approach that outlines organizational processes, responsibilities, and governance to manage and mitigate risks associated with cyber threats to vehicles, ultimately protecting them from cyberattacks.

services by establishing infrastructure for testing & validation of security of such product.

- 2. Create workforce for 500,000 professionals skilled in next 5 years through capacity building skill development and training.
- 3. Provide fiscal benefit to businesses for adoption of standard security practices and processes.
- 4. Enable Protection of information while in process, handling, storage & transit so as to safeguard privacy of citizen's data and reducing economic losses due to cyber-crime or data theft.
- 5. Enable effective prevention, investigation and prosecution of cybercrime and enhancement of law enforcement capabilities through appropriate legislative intervention.

EXEMPTIONS UNDER RTI ACT

The RTI Act, enacted in 2005, exempts certain intelligence and security organizations from its purview. This exemption includes entities listed in the Second Schedule, with a provision excluding information related to allegations of corruption and human rights violations. The recent amendment adds CERT-In as the 27th organisation exempted under this provision.

The decision to exclude CERT-In from RTI scrutiny raises concerns about transparency and accountability, particularly in the realm of cybersecurity. As a national nodal agency, CERT-In's activities are crucial for addressing cyber threats and ensuring the security of critical digital infrastructure. The move to shield it from RTI inquiries may impact the public's access to information on cybersecurity incidents, response strategies, and overall governance of digital security.



JOINT MILITARY EXERCISE MITRA SHAKTI-2023

The ninth edition of the Joint Military exercise "Exercise MITRA SHAKTI-2023" has officially commenced in Aundh (Pune), running from 16th to 29th November 2023. The exercise brings together the Indian and Sri Lankan armed forces for collaborative training and strategic cooperation.

PARTICIPANTS: The 120-strong Indian contingent is primarily composed of troops from the MARATHA LIGHT INFANTRY Regiment, reflecting India's commitment to the exercise. The Sri Lankan side is represented by personnel from the 53 Infantry Division. Additionally, 15 members from the Indian Air Force and five from the Sri Lankan Air Force are actively participating in the exercise.

OBJECTIVE AND FOCUS AREAS:

The primary aim of Exercise MITRA SHAKTI-2023 is to jointly rehearse Sub Conventional operations under Chapter VII of the United Nations Charter. The exercise scope includes:

- COUNTER-TERRORIST OPERATIONS: Both sides will practice tactical actions, including raid, search and destroy missions, and heliborne operations.
- **SPECIALIZED TRAINING:** Army Martial Arts Routine (AMAR), combat reflex shooting, and Yoga are integral components of the exercise curriculum.

PRALAY TACTICAL BALLISTIC MISSILE

On November 7, India conducted a successful test of the Pralay tactical ballistic missile off the coast of Odisha. The test marked a significant milestone as the missile covered its entire range of approximately 500 kilometres, demonstrating its operational capabilities effectively. Defense officials have reported that the test was highly successful and met all predetermined parameters. The project to develop Pralay was sanctioned in March 2015, with a budget of ₹332.88 Cr.

SALIENT FEATURES:

The Defence Research and Development Organisation (DRDO) developed a canisterised tactical, surface-tosurface, short-range ballistic missile (SRBM) for battlefield use. This missile incorporates technologies derived from India's Ballistic Missile Defence Programme, specifically the exo-atmospheric interceptor missile Prithvi Defence Vehicle (PDV), and the Prahaar tactical missile. It is a versatile ballistic missile designed for conventional roles and is slated for induction into the defense forces in substantial numbers. The missile is expected to enhance India's military capabilities significantly.

www.vedhikiasacademy.org



PILLARS

TECHNOLOGICAL INTEGRATION: The exercise incorporates the use of advanced technologies, including Drones and Counter Unmanned Aerial Systems, alongside helicopters. The joint drills will focus on securing helipads and executing casualty evacuation procedures during counter-terrorist operations.

INTEROPERABILITY AND RISK REDUCTION: Collective efforts during Exercise MITRA SHAKTI-2023 aim to achieve an enhanced level of interoperability among the troops. This strategic alignment seeks to reduce risks to life and property while prioritizing the interests and agenda of the United Nations during peacekeeping operations.

MUTUAL LEARNING AND DEFENSE COOPERATION: The exercise provides a platform for both sides to exchange views and practices on a wide spectrum of combat skills. Sharing best practices fosters a higher level of defence cooperation between the Indian Army and Sri Lankan Army, contributing to the mutual growth of military capabilities.

STRENGTHENING BILATERAL RELATIONS: Exercise MITRA SHAKTI-2023 not only enhances defence capabilities but also serves as a diplomatic tool to strengthen bilateral relations between India and Sri Lanka. The collaborative effort reflects the commitment of both nations to regional stability and security.

Warhead

Rocket

Controls

Motor

Bay

PRALAY: Surface-to-Surface Missile

Pralay is a canisterised tactical, surface-to-surface, and short-range ballistic missile for battlefield use developed by the Defence Research and Development Organisation of India

ENGINE: Two stage rocket motor with third stage MaRV

SPEED: Mach 1 to 1.6

```
RANGE: 150-500 km
```

TRAJECTORY: low

CUIDANCE SYSTEM: Inertial navigation system

LAUNCH PLATFORM: 8x8 BEML-Tatra transporter erector launcher

MASS: 5 tonnes (4.9 long tons; 5.5 short tons)

OPERATIONAL RANGE: 150-500 km (93-311 mi)

Can change its path after covering certain range mid-air and is difficult to be tracked It is capable of being launched from a mobile launcher and has latest navigation system and integrated avionics



RA



MASTER THE NEW LEARNING MANTRA



BOOK ONLINE

www.vedhikiasacademy.org





STATE OF INDIAN ECONOMY – NOVEMBER, 2023 UPDATES

SIXTEENTH FINANCE COMMISSION

23 181

PRADHAN MANTRI JANJATI ADIVASI NYAY MAHA ABHIYAN

MANDATORY BLENDING OF COMPRESSED BIOGAS

SPECIAL CELL TO MONITOR FOOD PRICES

SEA PROTOCOLS TO BOOST EXPORT HORTICULTURAL PRODUCTS



STATE OF INDIAN ECONOMY – NOVEMBER, 2023 UPDATES

GROWTH PROJECTIONS:

The **Reserve Bank of India (RBI)** forecast the domestic GDP to grow at 6.7 % - 7 % in the second quarter of 2023-24, a moderation from the 7.8 % growth rate recorded in the first quarter of the fiscal year. The Central Bank has cited improved industrial performance despite a weak monsoon hitting the farm sector for the upward revision of growth projections of the **RBI Monetary Policy Committee** from the earlier 6.5 %.

India's **real Gross Value Added (GVA)** had grown 7.8 % in the in the first quarter (April - June, 2023) quarter. The moderation of the base effect and an erratic monsoon are expected to result in a sequential moderation in the GDP growth to 7.0 % in Q2 from 7.8 % in Q1. The RBI forecasted a slowdown in each of the subsequent quarters of this year,

with a growth rate of 5.7 % in the last quarter with uneven rainfall, narrowing differentials with year-wise commodity prices, the possible slowdown in momentum of Government capex, weak external demand and the cumulative impact of monetary tightening.

The **World Bank (WB)** in April, 2023 projected India's growth forecast at 6.3% for the year 2023-24. The World Bank forecast the Current Account Deficit (CAD) of India to moderate to 1.8% of GDP in FY24 and FY25. The World Bank in its latest India Development Update forecast service sector activity to grow at 7.4% and investment growth projected to remain robust at 8.9%. The average level of Female Labour Force Participation Rate (FLPR) for emerging market economies is about 50%, compared to only 25% for India. A higher FLPR is necessary to ensure India to become a high-income country.



FIGURE: Column chart representation of the Quarter-wise Real GDP Growth Rates (%) for FY 2018-19 to FY 2023-24 (Q II). Inset: Column chart representation of the Real GDP growth rate forecasts of major economies in 2023-24.

KEY FACTORS DRIVING GROWTH

STRONG DOMESTIC DEMAND: Domestic consumption is expected to remain strong, supported by public infrastructure spending and private sector investment. India's capital expenditure as a percentage of GDP increased from 1.7 % in 2014 to nearly 2.9 % in 2022-23. The Union Budget 2023-24 allocated ₹ 10 lakh Cr. ie., 3.3 % of GDP for infrastructure, an increase of three times from 2019. India will spend nearly ₹ 143 lakh Cr. on infrastructure in seven fiscals through 2030, more than twice the ₹ 67 lakh Cr. spent in the previous seven starting fiscal 2017. India's gross domestic product to grow at an average 6.7 % through fiscal 2031 to be the fastest-expanding large economy. Per capita income is seen rising from \$ 2,500 in 2023-24 to \$ 4,500 by fiscal 2030-2031 making India a middle-income country. This growth will be underpinned by massive all-round infrastructure development, with sharp focus on integrating sustainability.

The Government e-Marketplace (GeM) achieved

an impressive ₹ 2 lakh Cr. gross merchandise value in just 8 months of 2023-24. The Government e-Market (GeM) portal was launched on August 9, 2016, for online purchases of goods and services by all the Central Government ministries and departments. GeM has over 63,000 government buyer organisations and over 62 lakh sellers and service providers.

The Union Ministry of Statistics and Programme Implementation, which monitors 1,763 projects infrastructure projects worth ₹ 150 Cr. or more reported cost over-runs in 417 projects and delays in 842 projects. The Union Ministry of Statistics and Programme Implementation found cost overruns of more than ₹ 4.77 lakh Cr. in September for 417 infrastructure projects, each with investments exceeding ₹150 Cr. The anticipated completion cost of 1,763 projects worth ₹ 24,86,402.70 crore is likely to face cost overruns by almost 20 %. Non reporting of year of commissioning or tentative gestation periods of 298 projects and the average time overrun in these projects is reported to be more than three years.



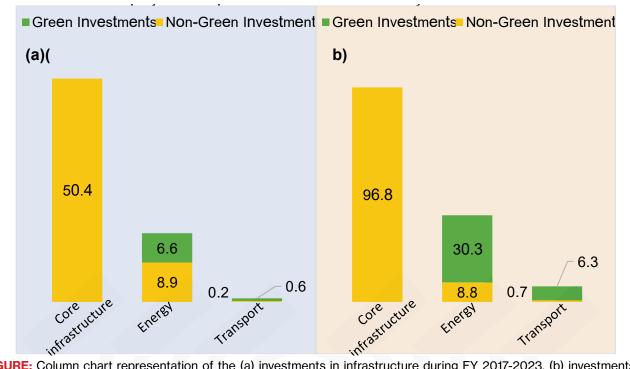


FIGURE: Column chart representation of the (a) investments in infrastructure during FY 2017-2023. (b) investments in infrastructure during FY 2024 -2030.

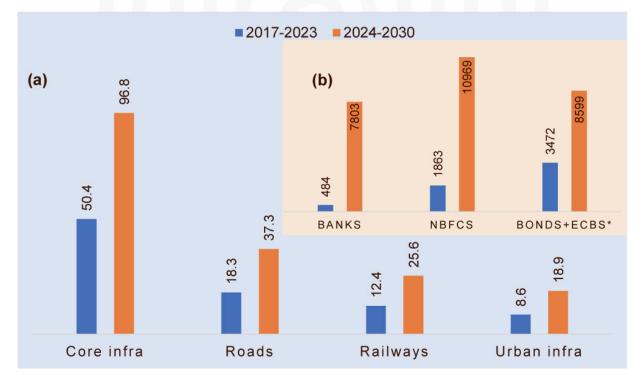


FIGURE: (a) Column chart representation of the investments in infrastructure during FY 2017-2023. (b) Column chart representation of the investments in infrastructure during FY 2017-2023.





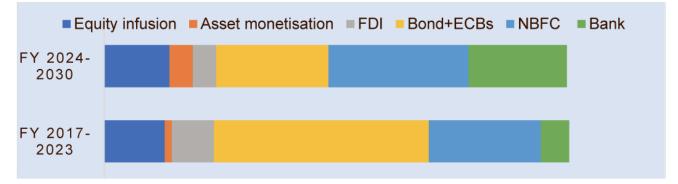


FIGURE: (a) Bar chart representation of the investments in infrastructure during FY 2017-2023 and FY 2024-2030. MANUFACTURING RECOVERY AND SERVICES SECTOR GROWTH: at a slower pace than in previous months. Manufact are facing some headwinds, such as rising input cost

MANUFACTURING PMI: The recovery in demand for exports and rise in domestic consumption is expected to drive the manufacturing sector. The services sector is expected to continue to grow at a steady pace, driven by strong growth in the financial, IT, and retail sectors. The S & P Global India Manufacturing Purchasing Managers' Index (PMI) for October with a reading of 55.5 above the longrun average of 53.9 recorded second consecutive month of slowing growth in the manufacturing sector. Overall, the S&P Global India Manufacturing PMI for October 2023 suggests that the manufacturing sector is still growing, but at a slower pace than in previous months. Manufacturers are facing some headwinds, such as rising input costs and weakening global demand. However, they remain optimistic about the outlook for the coming year.

SERVICES PMI: S&P Global India Services PMI dropped to 58.4 in October, from 61 in September, signalling the slowest expansion since March. The PMI is a composite index that measures business activity in the services sector based on surveys of businesses across India. The growth in output and new orders eased but remained positive. The employment growth remained robust with the employment Index rising slightly to 53.2 from 52.9 in September.

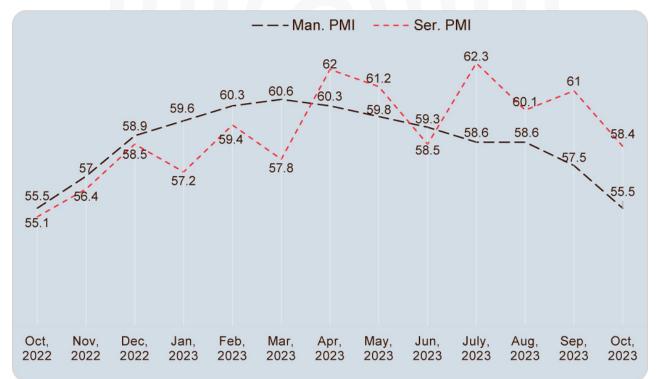


FIGURE: Column chart representation of the monthly S&P Global India Manufacturing Purchasing Managers' Index (PMI) and Services Purchasing Managers' Index (PMI).

RISKS TO THE GROWTH OUTLOOK

India's economy has been one of the fastest-growing in the world in recent years, but it is now facing several global headwinds that could pose risks to its future growth. These headwinds include:

• **Rising global interest rates:** The U.S. Federal Reserve and other central banks globally are raising interest rates in an effort to combat inflation. The increase in borrowing costs can make it more expensive for businesses and consumers to borrow money, reducing investment and spending, which can slow down economic growth. Besides, increasing debt servicing costs with rising interest rates increase the cost of servicing India's government debt, putting a strain on the government's finances and limit its ability to spend on social programs and infrastructure. Fiscal consolidation efforts could lead to lower government spending and slower economic growth.



- **Geopolitical turmoil:** The war in Ukraine and West Asia has disrupted global supply chains, leading to shortages and higher prices for essential commodities such as fertilizers, oil, and gas, significantly increasing India's import bill and putting pressure on its inflation rate. India is heavily reliant on imported energy, particularly oil and gas. The unilateral sanctions upon Russia by the west have further strained India's energy security situation, leading to higher energy costs and potential shortages.
- Economic Slowdown: China and Europe are not only major trading partners for India, but also a major source of foreign direct investment (FDI) to India. A slowdown in their economies could negatively impact investment inflows as well as India's exports. A slowdown in China's economy could reduce demand for Indian exports. This could put downward pressure on the

Indian rupee. This could make imports more expensive for Indian consumers and businesses.

In addition to these global headwinds, domestic challenges such as high levels of inflation, a weak banking sssector and infrastructure bottlenecks could hinder its growth.

INDEX OF INDUSTRIAL PRODUCTION

The Quick Estimates of Index of Industrial Production (IIP) for the month of September 2023 with Base Year (BY) 2011-12 stands at 141.6. Along with the Quick Estimates of IIP for the month of September 2023, the indices for August 2023 have undergone the first revision and those for June 2023 have undergone final revision in the light of the updated data received from the source agencies.

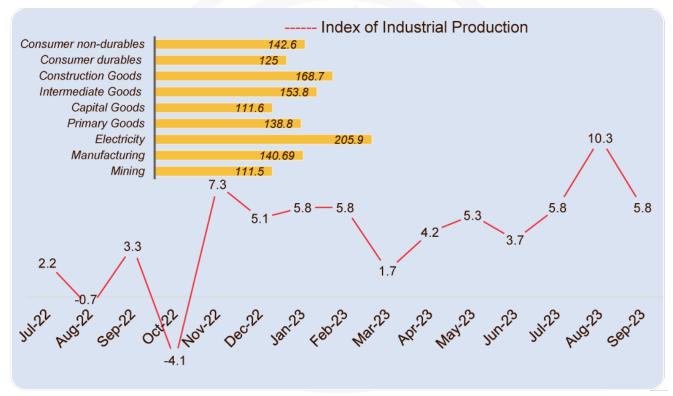


FIGURE: Line chart representation of the Index of Industrial Production growth rates (on Y-o-Y basis in per cent). Inset: Bar chart representation of the Indices of Industrial Productions of major items.

CORE SECTOR INDUSTRIES

The eight core industries' output growth eased to 8.1% in September 2023, lower than 8.3% growth recorded in September, 2022. All other seven industries, except for crude oil, which contracted 0.4% recorded positive growth in September 2023. The core sectors constitute a tad more than 40% of the Index of Industrial Production (IIP), which is expected to slip back into single digit growth after hitting a 14-month high of 10.4% in August.

A pickup in rainfall expectedly flattened the core sector expansion in September to a four-month low. The IIP growth is likely to moderate to high single digits in September, taking a cue from the core sectors' trajectory. Coal output expanded by double digits for the third consecutive month in September while steel and electricity also clocked robust growth.

September's IIP data indicates an uneven economic recovery, with some sectors performing well

while others struggle. Overall industrial production growth is positive, but consumer goods output is still below prepandemic levels. Investment-linked sectors such as infrastructure/construction goods and capital goods have been more resilient. Front-loading of capex spends this year may moderate, and additional revenue spends ahead of the Lok Sabha election are likely. The fall in infrastructure and construction goods' output in September suggests that one growth tide may be ebbing, which makes the more fragile consumption story even more critical to watch.

The Indian economy is recovering from the COVID-19 pandemic, but the recovery is uneven. Infrastructure investment is a key driver of growth, but there are concerns about the sustainability of high levels of capex spending. Consumption is likely to be a critical driver of growth in the coming quarters, but it is facing headwinds from high inflation.



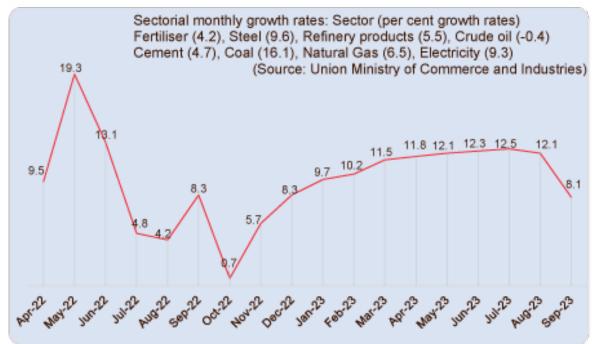


FIGURE: Line chart representation of the core sector growth rates (on Y-o-Y basis in per cent)

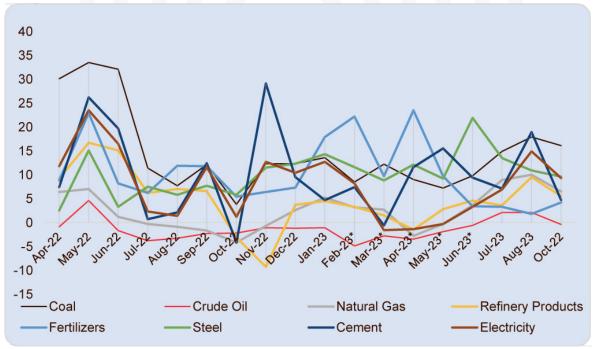


FIGURE: Line chart representation of the sub-sectorial growth rates (on Y-o-Y basis in per cent) of core sector industries.





INFLATION PROJECTIONS 20 -CPL -WPI 15 10 5 0 Nov, 2021 Jan, 2021 Jan, 2022 Feb, 2022 Apr, 2022 Jun, 2022 Jun, 2022 Jun, 2022 Sep, 2022 Sep, 2022 Sep, 2022 Nov, 2022 Nov, 2022 2023 2023 2023 2022 2023 2023 2023 2021 2021 28 202 202 202 202 202 202 202 202 202 202 Dec. Jan, Feb. Mar, Apr. Jun, Jul, Aug. 100 Way. Sop. de" lan. Aar. Apr Juny, (mg) Oct. 쿅 -10

FIGURE: Line chart representation of the All-India Consumer Price Indices (Base Year: 2011-12=100) and All India Wholesale Price Indices (Base Year: 2011-12=100) for October, 2023

WHOLESALE PRICE INDEX INFLATION

India's Wholesale Price Index (WPI) inflation remained in deflationary mode for the seventh month in a row in October 2023, with the WPI reflecting an inflation of - 0.52 % from - 0.26 % in September. This means that wholesale prices continued to fall year-on-year in October, albeit at a slower pace than in September.

The deflation was primarily driven by a decline in fuel and power prices. The fuel and power index fell by 11.6

% in October compared to the previous year, while the food index increased by 1.07 %. Despite the overall deflation, some sectors continued to experience inflationary pressures. The manufacturing products index rose by 0.93 %, while the minerals index increased by 2.34 %. The continued deflation in WPI inflation is a positive sign for the Indian economy, as it indicates that inflationary pressures are easing. However, the decline in fuel prices is also a reflection of the global economic slowdown, which could have implications for India's export growth.

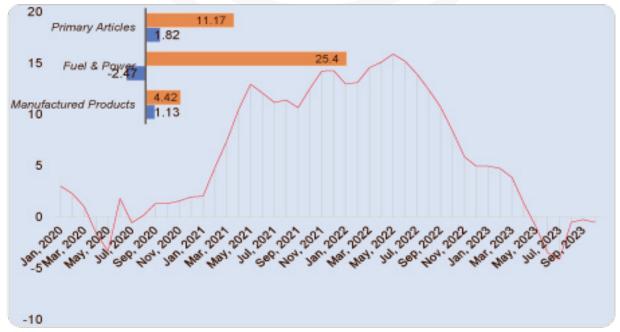


FIGURE: Line chart representation of wholesale price index-based inflation rates. Inset. Bar chart representation of the of All India Wholesale Price Indices for food articles and Rates of Inflation (Base Year: 2011-12=100) for October, 2023.



RETAIL PRICE INDEX INFLATION

India's retail inflation eased to a four-month low of 4.87 % in October from a tad over 5 % in September, with the rise in vegetables prices easing to 2.7 % from 3.4 %, though overall consumer food price inflation remained virtually unchanged at 6.6 %. The Reserve Bank of India (RBI) is unlikely to lower interest rates anytime soon especially as the food price situation remains sticky and reversed its sequential direction from a 2.2 % month-on-month drop in September. The RBI has recently vowed to remain focused on price rise till it sustains around its 4 % target, rather than be satisfied with inflation prints between the 4 % mark and the upper tolerance threshold of 6 %.

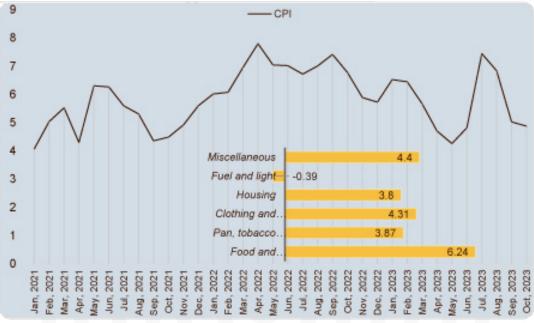


FIGURE: Line chart representation of retail price index-based inflation rates. Inset. Bar chart representation of the of All India Retail Price Indices for food articles and Rates of Inflation (Base Year: 2011-12=100) for October, 2023.

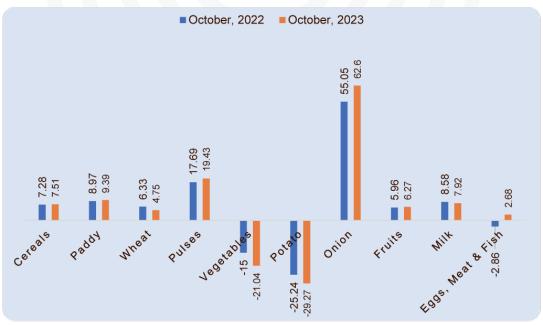


FIGURE: : Column chart representation of All India Wholesale Price Indices based rates of Inflation (Base Year: 2011-12=100) for October, 2023

High frequency data show the prices of several food items already firming up this month. Several constituent prices are already firming up – onions; tomatoes; cereals; pulses; and sugar – with the potential to disrupt the gains made in the last two months.



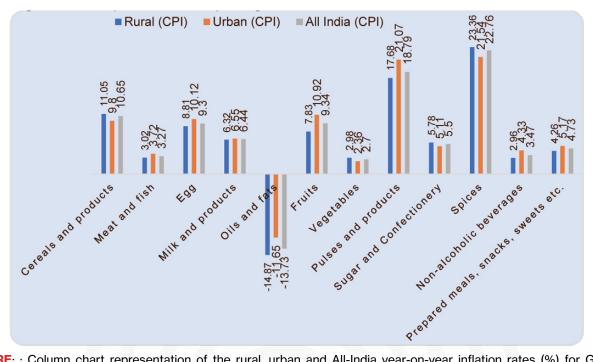


FIGURE: : Column chart representation of the rural, urban and All-India year-on-year inflation rates (%) for General, Group and Sub-group level CPI and CFPI numbers for October 2023 (Provisional) for Rural, Urban and Combined (Base: 2012=100)

As per the 5.6 % average inflation projection of RBI Monetary Policy Committee for this quarter, down from 6.4 % in the previous quarter, November and December may witness an average inflation of 5.95 %, fractionally short of the central bank's upper tolerance threshold.

Retail inflation had eased to 5.88 % last November, with the food price index rising just 4.7 %, from 7 % in the previous month. A 13.7 % year-on-year drop in prices excluding edible oils played a key role in moderating the Consumer Price Index. Base effects from last year's spike in edible oil prices during the Ukraine conflict will start to dissipate in coming months. Similarly, the 6.8 % inflation recorded in October 2022 helped cool price rise last month.

Households that seem to have adjusted to the continuous recent rise in living costs, by pulling back on discretionary spends and downsizing essential consumption as per industrial output trends, are likely to remain cautious rather than loosen their purse strings anytime soon. For an economy whose resilience relies on its domestic demand buffer against global shocks, reluctant or budget-cramped consumers are the biggest headwind for policymakers to strive to address.

Reserve Bank of India Monetary Policy Committee (MPC)

The Reserve Bank of India Monetary Policy Committee (MPC) in its recent Bi-monthly Policy Review raised its average inflation projection for the Second Quarter (July - September) from 6.2 % to 6.4 %. In the current quarter, the MPC forecast the average inflation of 5.6 % for the full year 2023-24. The RBI has projected an average inflation of 5.4 % in 2023-24, the International Monetary Fund and World Bank raised their estimates this month to 5.5 % and 5.9 %, respectively.

The RBI Monetary Policy Committee (MPC) decided to leave interest rates unchanged. The MPC last week raised its projection for average second-quarter inflation by 20 basis points, from the August forecast of 6.2 % to 6.4 %. The MPC is hoping that the recent reduction in domestic LPG prices combined with a lowering of vegetable prices would provide some near-term respite to price pressures.



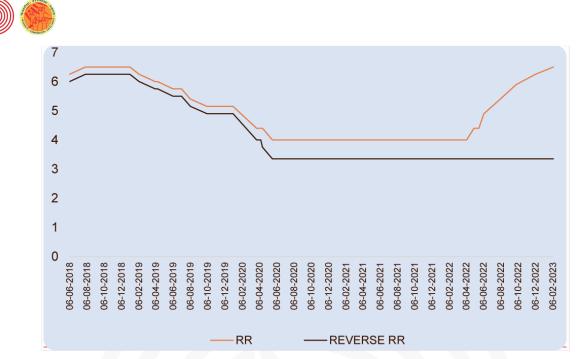


FIGURE: Line chart representing the Liquidity Adjustment Facility (LAF). Source: Reserve Bank of India (RBI) Handbook of Statistics

MERCHANDISE AND SERVICE TRADE

year were responsible for dragging overall shipment values.

According to the Ministry of Commerce and Industry, India's goods exports recorded a 6.2 % growth, only for the second time in this FY 2023-24. In September, 2023, India exported merchandise worth \$ 33.57 billion, while merchandise imports an all-time high of \$ 65.03 billion.

Consequently, India's monthly goods trade deficit widened to an all-time high of \$ 31.46 billion, eclipsing the previous record of \$ 29.23 billion in September 2022. October's outbound shipments' value was also the lowest since last November, 2.5 % below September's tally. As per provisional Commerce Ministry data, between April – October, 2023-24, merchandise exports stand at nearly \$ 245 billion, 7 % below April – October, 2022-23 figure in the same period. The volumes of exports have been rising or stable for some commodities, lower prices vis-à-vis last A rise in crude price-driven increase in oil imports, wedding and festive season-led demand in gold and other items such as electronics, gems and jewellery have led the upside. Some manufacturing imports like chemicals, machinery and base metals are also witnessing buoyancy. The widening of trade deficit has been single-handedly driven by imports, which may normalise next month.

A large part of the spike in October's imports to a surge in gold imports, which were up 95.4 % to \$ 7.2 billion, trade analysts noted that other items, including oil, electronic and gems and jewellery, also contributed to the record import bill. The over \$ 65 billion imports last month were as much as 20.8 % higher than September. The previous high import bill, of \$ 64.3 billion, was recorded in June 2022, when commodity prices were spiralling after the Russia-Ukraine conflict.

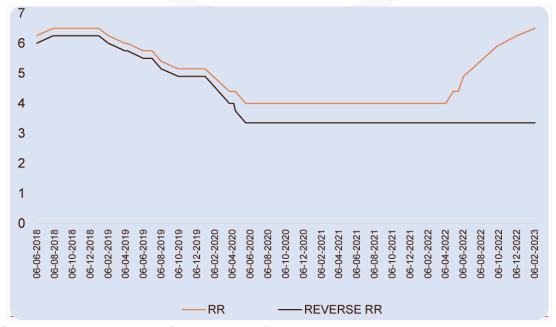


FIGURE: Column chart representation of monthly value of merchandise and services exports

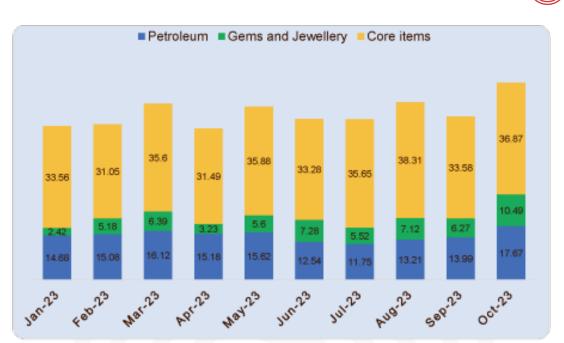


FIGURE: Bar chart representation of the import profile of Indian imports. Gems & Jewellery*: Gold, Silver & Pearls, precious & Semi-precious stones.



FIGURE: Column chart representation of trade surplus.



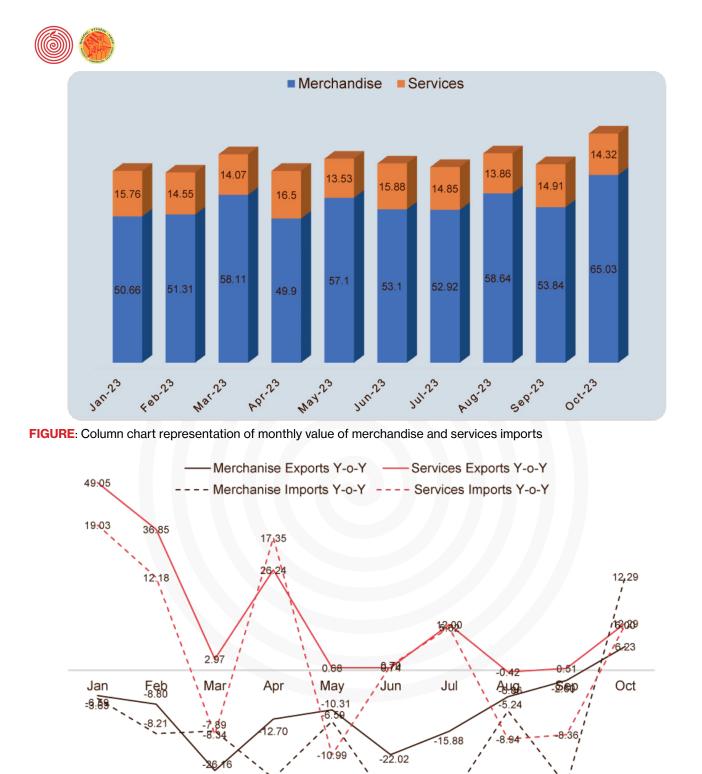


FIGURE: Column chart representation of Year on Year (Y-o-Y) merchandise and services export and import growth.

-14.05



17.48

-17.01

-15.04



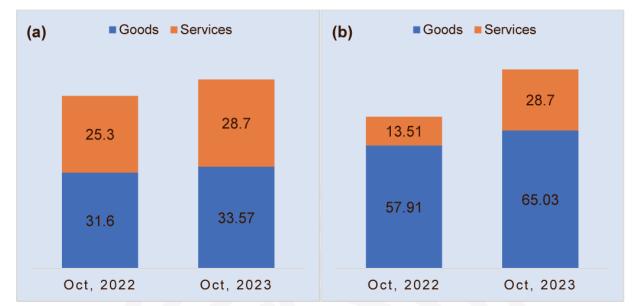


FIGURE: (L) Column chart representation of monthly value of exports of goods and services. (R) Column chart representation of monthly value of imports of goods and services.

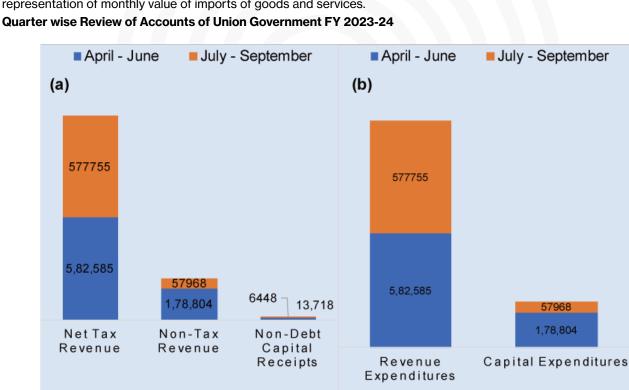


FIGURE: Column chart representation of (a) Quarter wise receipts of the Union Government FY 2023-24 (b) Quarter wise expenditures of the Union Government FY 2023-24.

TAX DEVOLUTION

Tax devolution is a major source of funds for states, used for spending on development, welfare and priority-sector projects and schemes. Currently, 41 % of taxes collected by the Centre is devolved in 14 instalments among states during a fiscal year. The funds have been allocated to the states based on a predefined formula set by the Finance Commission that takes into account various factors such as population, area, and fiscal capacity. The Finance Commission (FC) is a constitutional body that is mandated to review the financial relationship between the Centre and States every five years. The latest recommendations are

from the 15th Finance Commission (FC), which was valid for the period 2020-21 to 2025-26.

The Centre authorised the release of tax devolution of ₹ 72,961.21 Cr. to State Governments for November 2023. This will enable the state governments to make intime releases and add to the festivities and celebrations among the people. With an allocation of ₹ 13,088.51 Cr., Uttar Pradesh has topped with the highest allocation in November, followed by Bihar at ₹ 7,338.44 Cr.

Meanwhile, the number of income tax returns (ITRs) for assessment year (AY) 2023-24, filed by 31 October, stood



at a record 76.5 million, up 11.7 % from the comparable period of the previous year, the Central Board of Direct Taxes (CBDT) said on Wednesday.

INDIRECT TAX COLLECTIONS

The gross GST revenue collected in the month of October, 2023 is ₹ 1,72,003 Cr out of which ₹ 30,062 Cr is CGST, ₹ 38,171 Cr is SGST, ₹ 91,315 Cr (including ₹ 42,127 crore collected on import of goods) is IGST and ₹ 12,456 Cr (including ₹ 1,294 Cr collected on import of goods) is cess.

The government has settled ₹ 42,873 Cr to CGST and ₹ 36,614 Cr to SGST from IGST. The total revenue of Centre and the States in the month of October, 2023 after regular settlement is ₹ 72,934 Cr for CGST and ₹ 74,785 Cr for SGST.

The gross GST revenue for the month of October, 2023 is 13 % higher than that in the same month last year. During the month, revenue from domestic transactions (including import of services) is also 13 % higher than the revenues from these sources during the same month last year. The average gross monthly GST collection in the FY 2023-24 now stands at Rs. 1.66 lakh crore and is 11 % per cent more than that in the same period in the previous financial year.

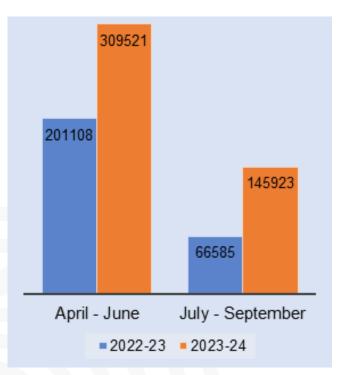




FIGURE: Column chart representation of components of Goods & Services Tax (GST) receipts (Cr.) (on Y-o-Y basis).





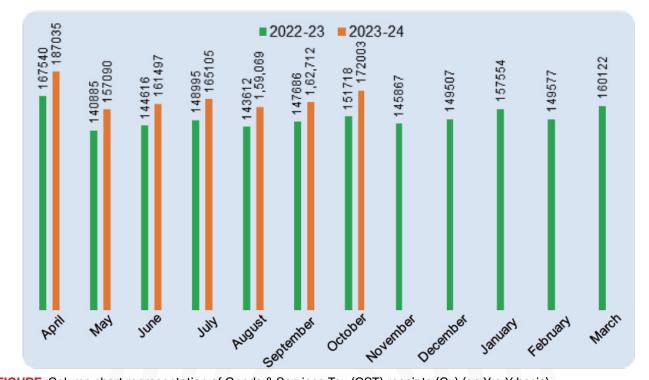


FIGURE: Column chart representation of Goods & Services Tax (GST) receipts (Cr.) (on Y-o-Y basis).

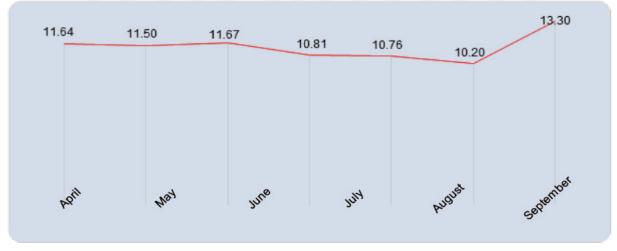


FIGURE: Line chart representation of growth rate of Goods & Services Tax (GST) receipts (Cr.) (on Y-o-Y basis).

SIXTEENTH FINANCE COMMISSION

CONTEXT: The Union Cabinet approved the terms of reference (ToR) for the Sixteenth Finance Commission, which will recommend the formula for sharing revenues between the Centre and the States for the five-year period beginning on April 1, 2026.

BACKGROUND: Despite the Constitution's mandate to establish an FC every five years, breaking the trend, the 15th FC's term was extended by a year, ending in 2025–2026. In late 2019, the Commission was asked to give a standalone report for 2020-21 and another report for an extended five-year period till 2025-26. Since the FFC report covered six years (instead of five), the next FC must be selected this year. The last time an FC was granted a six-year time frame was for the 9th FC, formed in June 1987. The 10th FC was still constituted in June 1992 within the five-year deadline specified by Article 280 of the Constitution, which has not been the case this time. The 15th Finance Commission chaired by NK Singh was set up in November 2017 with a mandate to make recommendations for the five-year period from 2020-21. The Commission is usually granted about

two years to deliberate on its terms of reference, consult States and frame its recommendations.

RECENT HAPPENINGS: The government has set a deadline of October 31, 2025, for the panel to submit its recommendations. Apart from the key recommendation on distribution of net proceeds of taxes between the Centre and States and allocation among States of the respective share of such proceeds, the panel will also prescribe measures needed to augment the Consolidated Fund of a State to supplement resources of the panchayats and local bodies on the basis of recommendations made by the respective State Finance Commissions.

Under the ToR, the panel will recommend principles that



should govern the grants-in-aid of the revenues of the States out of the Consolidated Fund of India and the sums to be paid to the States by way of grants-in-aid of their revenues. Also, it may review the existing arrangements on financing Disaster Management initiatives and make appropriate recommendations.

The Government had established an Advance Cell in the Finance Ministry on November 21, 2022, to oversee the preliminary work pending formal constitution of the panel. Subsequently, a Working Group headed by Finance Secretary and Secretary (Expenditure) and comprising several senior officials was set up to assist in the formulation of the ToRs. As part of the consultative process, views and suggestions were sought from the State governments and

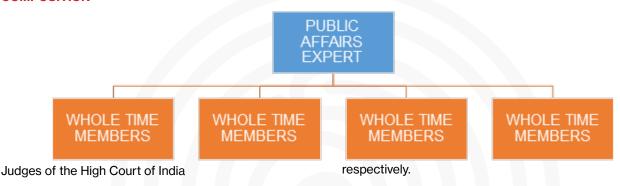
COMPOSITION

Union Territories (with legislature) on the ToRs and duly deliberated by the group.

FINANCE COMMISSION

The President of India appoints the Finance Commission every fifth year or at such earlier time as he considers necessary.

Article 280 (2) empowers the Parliament to make laws that lay down procedures and qualifications for appointment as members to the Finance Commission. The Parliament enacted the Finance Commission (Miscellaneous Provisions) Act, 1951. The Finance Commission make nonbinding recommendations to the Government of India.



Specialised knowledge in finance, economics or practical experience in financial matters

Practical experience in public administration

CONSTITUTIONAL FUNCTIONS AND MANDATE

~ Formulate principles governing vertical devolution of net proceeds from divisible pool of taxes between the Union and the States and horizontal distribution among States ~ Recommend principles governing transfer of Grants-inaid to the States from the Consolidated Fund of India.

~ Recommends measures needed to augment Consolidated Fund of States, including supplementing resources of Panchayats and Municipalities.

~ Recommends any other matter referred to the Commission by the President in the interests of sound finance of the State Treasury.

RECOMMENDATIONS OF THE FIFTEENTH FINANCE COMMISSION

- Suitability of vertical devolution from net proceeds from divisible pool of taxes after committed expenditures of the Centre. A residual approach of distributing sharable pool of taxes after the committed expenditures of the Centre would pauperize the States.

~ Suitability of utilising Census 2011 instead of the 1971 Census for population data to determine the devolution of sharable pool of taxes. If the previous finance commission had used 2011 population figures entirely instead of as a subcomponent southern states would have received about ₹ 20,000 Cr less over the 5-year period from 2015-2020.

~ Suitability of providing revenue deficit grants. Revenue deficits are offshoots of the path of development followed by States and cannot be brought down in the short term. Discontinuing post-tax devolution of revenue deficit grants would go against the principle of cooperative federalism.

~ Suitability of proposing performance-based incentives beyond those relating to fiscal responsibility, population and devolution to local bodies.

~ Impact of the GST, including payment of compensation for possible loss of revenues for 5 years, and abolition of a number of cesses, earmarking thereof for compensation and other structural reforms programme, on the finances of Centre and States.

~ Suitability of curtailing borrowing by States from the present 3 % of Gross State Domestic Product (GSDP) to 1.7 %.



INDIA'S LARGEST ONLINE IAS COACHING ACADEMY



PRADHAN MANTRI JANJATI ADIVASI NYAY MAHA ABHIYAN

The Centre launched Pradhan Mantri Janjati Adivasi Nyay Maha Abhiyan (PM-JANMAN) as a flagship scheme in 2023 to improve the socio-economic conditions of the Particularly Vulnerable Tribal Groups (PVTGs).

BACKGROUND: India has ST population of 10.45 crore as per 2011 census, out of which 75 communities located in 18 States and the Union Territory of Andaman and Nicobar Islands have been categorized as Particularly Vulnerable Tribal Groups (PVTGs). These PVTGs continue to face vulnerability in social, economic and educational fields. The scheme focuses on 11 critical interventions through 9 ministries with a total outlay of ₹ 24,104 Cr. and will be implemented over a period of five years.

- 1. Housing: Financial assistance of ₹ 2.39 lakhs / house for constructing 4.9 lakh pucca houses to PVTG households by 2027.
- 2. Water and sanitation: Ensure access to clean drinking water, sanitation facilities, and solid waste management to all 4.9 pucca houses to PVTG households constructed under the scheme and 2500 villages / habitations with population of less than 20 House Holds (HHs).
- 3. Education: Financial assistance of ₹ 50 lakh / PVTG block to provide quality education to all PVTG children, including early childhood education, elementary education, secondary education, and higher education to 60 PVTG blocks.
- Health: Financial assistance of ₹ 33.88 lakh Cr per MMU for construction of 1000 Mobile Medical Units (MMUs) to ensure quality healthcare, including primary healthcare, secondary healthcare, and tertiary healthcare, to all PVTGs.
- 5. Hotels: Financial assistance of ₹ 2.75 Cr. / hotel for constructing 500 hotels to PVTG households by 2027
- Nutrition: Financial assistance of ₹ 12 lakh / Anganwadi Centre ₹ 60 lakhs / Multipurpose Centres (MPCs) for constructing 2500 Anganwadi Centres and 1000 Multipurpose Centres (MPCs) to provide nutrition support to all PVTG children, pregnant women, and lactating mothers
- 7. Energy: Financial assistance of ₹ 22,500 / PVTG HH and ₹ 50,000 / PVTG HH or as per actual cost for

energisation of of HHs to ensure Last Mile Connectivity for 57000 PVTG HHs and provision of 0.3 KW solar off-grid system to 100000 PVTG HHs.

- 8. Financial assistance of ₹ 1,00,000/unit for solar lighting in streets & MPCs.
- 9. Financial assistance of ₹ 15 lakhs/VDVK for setting up of 500 VDVK
- 10. Livelihood: Providing sustainable livelihood opportunities to all PVTGs, including agriculture, horticulture, animal husbandry, and forest-based industries.
- Sustainable livelihood opportunities for PVTGs Connectivity: Financial assistance of ₹ 1 Cr. / km for constructing 800 km of road and telecom connectivity to all PVTG habitations.

The scheme will be implemented in 75 PVTG-concentrated districts in 18 states and the Union Territory of Andaman and Nicobar Islands. The scheme will be monitored by a high-level committee chaired by the Minister of Tribal Affairs. The PM-JANMAN scheme is a significant step towards improving the lives of PVTGs in India. The scheme has the potential to make a real difference in the lives of millions of PVTGs across the country.

PARTICULARLY VULNERABLE TRIBAL GROUPS (PVTGS)

PVTGs are more vulnerable among the tribal groups. In 1975, the Government of India initiated to identify the most vulnerable tribal groups as a separate category called PVTGs and declared 52 such groups, while in 1993 an additional 23 groups were added to the category, making it a total of 75 PVTGs out of 705 Scheduled Tribes, spread over 18 states and one Union Territory (A&N Islands) in the country (2011 census). Among the 75 listed PVTG's the highest number are found in Odisha (13), followed by Andhra Pradesh (12).

MANDATORY BLENDING OF COMPRESSED BIOGAS

The National Biofuels Coordination Committee (NBCC) approved the roadmap for the mandatory blending of compressed biogas (CBG) in the city gas distribution (CGD) sector, targeting the transportation and domestic segments, aimed to boost the manufacturing and consumption of CBG in India.

Phased Implementation

The Central Repository Body (CRB) will oversee and implement the mandatory blending to be introduced in a phased manner, commencing in the fiscal year 2025-26.





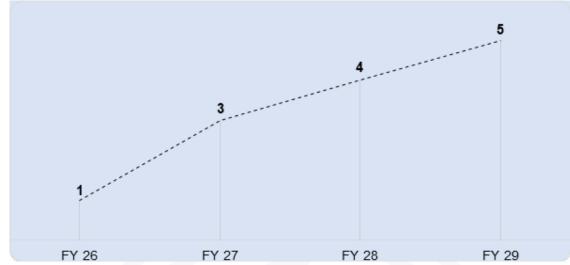


FIGURE: Line chart representation of the phase wise mandatory blending ratios of compressed biogas (CBG) in the city gas distribution (CGD) sector.

The government outlines several objectives for the Compulsory Blending Obligation (CBO), including stimulating demand for CBG in the CGD sector, reducing Liquefied Natural Gas (LNG) imports, saving foreign exchange, promoting a circular economy, and contributing to the net-zero emission target. The Union Ministry for Petroleum and Natural Gas anticipates investments worth approximately ₹ 37,500 Cr. and the establishment of 750 CBG projects by FY29.

Biogas, derived from biomass decomposition, serves as a precursor to CBG production. The sources for biogas include agricultural residue, cattle dung, sugarcane press mud, municipal solid waste, and sewage treatment plant waste. CBG, with over 90 % methane content, closely resembles commercially available natural gas in composition and energy potential.

The Sustainable Alternative Towards Affordable Transportation (SATAT) scheme launched in 2018 with the aim of establishing 5,000 CBG plants by 2023, that aimed to produce 15 million tonnes of CBG. However, only 48 CBG units have been set up under SATAT, prompting concerns about clarity and procedural hurdles.

The Parliamentary Standing Committee on Petroleum and Natural Gas has raised concerns about the sluggish progress in CBG initiatives. The committee recommended financial assistance for entrepreneurs establishing CBG units and urged public sector oil and gas companies to invest in CBG plants to demonstrate viability and instill confidence among potential investors.

SPECIAL CELL TO MONITOR FOOD PRICES

The Centre plans to constitute a special cell under the Department of Food and Public Distribution to strengthen the monitoring of essential commodities and contain food inflation. The proposed cell would focus on analysing prices of key food items such as food grains, pulses, wheat, rice, maize, and others. The Inter-Ministerial Committee (IMC), which currently reviews essential commodities' prices, would benefit from the specialized cell, which will alert authorities to significant variations in domestic and international food prices.

The Inter-Ministerial Committee (IMC), headed by the Union Home Minister Amit Shah, has been reviewing essential commodities' prices and policies weekly since 2017. However, the proposed special cell would enhance the analysis capabilities and provide timely alerts. The special cell is expected to focus on comprehensive analysis, covering wheat, rice, maize, and other food items, expanding the scope beyond the existing focus on edible oils and sugar, which are tracked separately.

The Centre has implemented measures to curb food inflation, including export bans on essential commodities like rice. A dedicated cell would provide additional analytical support for making informed decisions. With general elections approaching, the government is keen on monitoring and controlling food prices to address concerns related to inflation, particularly in essential food items. The creation of the special cell involves a request for the posting of Additional Director (AD) or Deputy Director (DD)-level economic service officers with expertise in econometric modelling and analysis.

www.vedhikiasacademy.org



Comprehensive Coaching For 568 Government Jobs



SEA PROTOCOLS TO BOOST EXPORT HORTICULTURAL PRODUCTS

India is actively developing sea protocols for the export of various fresh fruits and vegetables like bananas, mangoes, pomegranates, and jackfruit. This strategic move aims to promote exports through ocean routes, offering cost advantages and accommodating larger volumes compared to air routes.

India, despite being the world's largest banana producer, holds only a 1 % share in the global market. The sea protocols would enhance export capabilities can contribute significantly to global trade in agricultural products.

Presently, most exports of perishable goods occur through air routes due to lower volumes and varying ripening periods. The sea protocols being developed encompass factors such as voyage time, scientific understanding of ripening processes, optimal harvesting times, and farmer training. Protocols will be tailored for different fruits and vegetables. The collaboration involves technical support from ICAR-Central Institute for Subtropical Horticulture, marketing and distribution partnerships with companies like Del Monte, and logistics support from Maersk for the trial shipment of bananas.

The Agricultural and Processed Food Products Export Development Authority (APEDA), in collaboration with stakeholders, has initially developed sea protocols for bananas. Trial shipments are underway to Rotterdam, the Netherlands. A successful implementation of sea protocols is anticipated to substantially increase export volumes of fresh fruits and vegetables. The initiative aligns with the goal of diversifying export channels and reducing dependence on air cargo.

Shipments through sea routes offer two significant advantages – cost-effectiveness and the capacity to handle larger volumes, making it a favourable option for promoting agricultural exports. High freight costs associated with air cargo have posed a challenge to Indian agricultural exports. The shift to sea routes aims to improve price competitiveness and enhance the export potential of perishable commodities.

NATIONAL HORTICULTURE MISSION (NHM)

The National Horticulture Mission (NHM) is a key initiative of the Government of India to promote the development of the horticulture sector in the country. It was launched in 2005-06 under the 10th Five-Year Plan and is one of the sub-schemes of the Mission for Integrated Development of Horticulture (MIDH).

OBJECTIVES:

- 1. Increase production and productivity of horticulture crops: The mission aims to enhance the production and productivity of horticulture crops, including fruits, vegetables, flowers, and spices, to meet the growing demand for these products both domestically and internationally.
- 2. Promote value addition and processing: The NHM encourages the adoption of value addition and processing techniques to enhance the shelf life,

quality, and marketability of horticultural produce. This includes developing infrastructure for processing, packaging, and storage.

- 3. Improve post-harvest management practices: The mission focuses on improving post-harvest management practices to minimize losses and ensure the quality of horticultural produce throughout the supply chain. This includes training for farmers, traders, and cold storage operators.
- 4. Strengthen extension services: The NHM strengthens extension services to provide farmers with timely and relevant information on horticulture practices, technologies, and market trends. This includes establishing demonstration farms, organizing training workshops, and providing advisory services.
- 5. Address infrastructure gaps: The mission identifies and addresses infrastructure gaps, such as lack of irrigation facilities, roads, and storage facilities, that hinder the growth of the horticulture sector.
- Enhance market access: The NHM facilitates market access for horticultural produce through initiatives like establishing linkages with organized retail chains and promoting exports.

IMPACTS

- 1. Increased production and productivity: Horticulture production has increased substantially, with fruits and vegetables production growing by 50% and 60%, respectively, from 2005-06 to 2022-23.
- 2. Improved value addition: Value addition in horticulture has grown, with the export of processed fruits and vegetables increasing by over 200% during the same period.
- 3. Enhanced post-harvest management: Post-harvest losses have been reduced, and the quality of horticultural produce has improved due to better handling practices.
- 4. Strengthened extension services: Extension services have expanded, reaching more farmers and providing them with valuable knowledge and skills.
- 5. Addressed infrastructure gaps: Infrastructure gaps in irrigation, roads, and storage facilities have been addressed in many areas, improving the overall efficiency of the horticulture sector.
- 6. Enhanced market access: Market access for horticultural produce has improved through various initiatives, including direct marketing and export promotion.

The NHM has played a crucial role in transforming the Indian horticulture sector, making it a key contributor to the country's agricultural economy and food security. It continues to be a driving force for the development and growth of the sector, contributing to rural livelihoods and economic prosperity.



63

+91-9383432123 +91-7777875588

+91-0484-4527777

ECOLOGY



CLIMATE FINANCE AUDIT REVEALS ALARMING DEFICITS

BIOSPHERE RESERVES: BEACONS OF EVOLVING HOPE

SOUTHERN INDIA: SIXTH DRIEST OCTOBER, 60% LESS RAINFALL

ADAPTATION GAP REPORT 2023

2030 FOSSIL FUEL LIMIT TO DOUBLE: REPORT WARNS

CITES PARTIES URGED FOR STRICT JAGUAR CONSERVATION MEASURES

DOMINICA ESTABLISHES FIRST MARINE SANCTUARY FOR SPERM WHALES

IGBC INTRODUCES 'NEST' FOR ECO-FRIENDLY HOUSING CERTIFICATION

SOUTH INDIA RESERVOIRS AT 50% CAPACITY DROP

NATIONAL OIL SPILL DISASTER CONTINGENCY PLAN

GLOBAL TIGER RECOVERY PROGRAM 2.0

STATE FISH FOR GUJARAT

DELHI PLANS 'CLOUD SEEDING' TO TRIGGER RAINS DURING POLLUTION

SHRINKING KADALUNDI MUDFLAT DETERS BIRDS



CLIMATE FINANCE AUDIT REVEALS ALARMING DEFICITS

CONTEXT: Climate finance key for trust in COP 28; pivotal in Climate Change 2023 discussions.

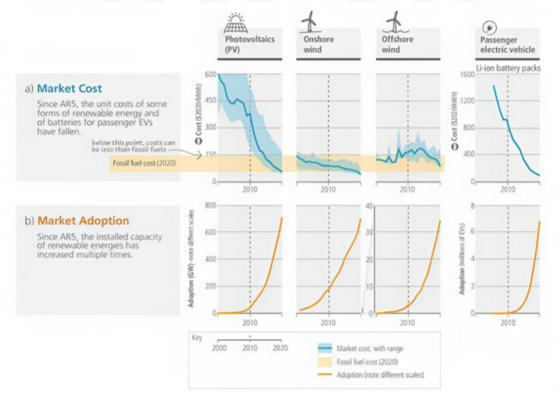
BACKGROUND: The report attributing increased hazardous weather to a 1.1°C temperature rise fuels global stocktake discussions. Developed and climate-vulnerable nations may press developing countries for heightened mitigation, countered by demands that developed nations fulfill the \$100 billion climate finance commitment. This sum falls short of supporting developing nations in transitioning to low-carbon, climate-resilient development, embodying the Common but Differentiated Responsibilities principle.

HIGHLIGHTS

- Financial Obligations: Developed nations mandated to provide climate funds; commitment at Copenhagen (\$100 billion/year by 2020) and Paris (\$100 billion by 2025).
- Shortfall Acknowledgment: Glasgow 2021: Developed

nations express regret for mobilizing only \$79.6 billion, falling short of the \$100 billion goal.

- Indian Perspective: India's NDCs indicate financial needs of \$206 billion for adaptation and \$834 billion for mitigation; emphasizes a just transition.
- Global Funding Gap: Combined NDCs project a \$6 trillion funding requirement by 2030, potentially overshooting the 1.5°C temperature goal.
- Burden Sharing Challenge: Lack of an agreed formula for developed nations to share financial burden; U.S. cited to provide only 5% of its fair share.
- Unclear Mobilization Criteria: Absence of a mandatory formula for climate finance mobilization; no specified criterion in UNFCCC or Paris Agreement.



Credit: Climate Change 2023: Synthesis Report

The swift and robust response of the G-20 governments in 2009-10 to the global financial crisis showcased strong political will and shared interest. In contrast, the lack of urgency and commitment from the Global North in climate finance transfers for atmospheric protection reveals a critical gap in addressing the collective challenge of climate change.

BIOSPHERE RESERVES: BEACONS OF EVOLVING HOPE

CONTEXT: UNESCO interns tackle plastic pollution in Island of Principe Biosphere Reserve, promoting sustainable tourism.

BACKGROUND: Amid the allure of natural retreats, escalating tourism raises concerns about heightened single-use plastic consumption. In Sao Tome and Principe's Biosphere Reserve, schoolchildren are provided stainless steel bottles, countering plastic waste. UNESCO biosphere reserves globally serve as vital sanctuaries, fostering biodiversity, curbing pollution, and bolstering climate resilience – a harmonious coexistence of nature and humanity.



INDIA'S LARGEST ONLINE IAS COACHING ACADEMY



Total 18 Biosphere Reserves

LIST OF BIOSPHERE RESERVES OF INDIA

Of the 18 Biosphere, 12 are part of the UNESCO MAB programme Cold Desert (Himachal Pradesh Nanda Devi Biosphere Reserve (Uttarakhand) Achanakmar - Amarkantak Dihang - Dibang **Biosphere Reserve** Khangchendzonga (Arunachal Pradesh) Madhya Pradesh & National Park (Sikkim) Chhattisgarh Manas and Dibru - Saikhowa Great Rann of National Park (Assam) Kurch (Gujarat) Nokrek National Park (Meghalaya) Panna National Park and Sundarbans Pachmarhi Biosphere (West Bengal) Reserve (Madhya Pradesh) Simlipal National Park (Odisha) Seshachalam Hills Nilgiri Biosphere Reserve (Andhra Pradesh) (Tamil Nadu, Kerala) Great Nicobar **Biosphere Reserve** (Andaman and Agasthyamalai Biosphere Nicobar Islands) Reserve (Kerala, Tamilnadu) Gulf of Mannar Ô (Tamil Nadu)

Part of the World Network of Biosphere Reserves, based on the UNESCO Man and the Biosphere (MAB) Programme

ABOUT BIOSPHERE RESERVES

- Biosphere Reserves Structure: Core, buffer, and transition zones create a harmonious balance for people, nature, and scientific study.
- UNESCO's Purpose: Designated by UNESCO, biosphere reserves aim at biodiversity conservation, sustainable development, and research.
- Global Presence: 748 biosphere reserves in 134

countries, with 22 transboundary sites, promote cooperation and impact over 250 million lives.

- Indian Contribution: India hosts 12 biosphere reserves, actively participating in global efforts for sustainable development and biodiversity conservation.
- Learning for Development: Biosphere reserves serve as 'learning places,' testing interdisciplinary approaches to managing social-ecological systems, conflict prevention, and biodiversity.

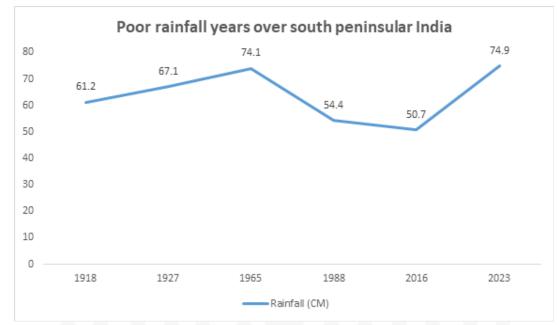
+91-9383432123 +91-7777875588 +91-0484-4527777



SOUTHERN INDIA: SIXTH DRIEST OCTOBER, 60% LESS RAINFALL

CONTEXT: IMD reports sixth driest October in 123 years for southern peninsular India.

BACKGROUND: Southern peninsular India, encompassing states like Kerala, Karnataka, Tamil Nadu, and others, faced an unusual 25-day dry spell in October. Contrary to previous years, the southwest monsoon concluded on time after a 134-day season. The region received significantly below-normal rainfall, just 74.9mm, marking a 60% deficit, leading to concerns about potential impacts on water resources and agriculture.



REPORT HIGHLIGHTS

- Poor Rainfall Causes: Northeast monsoon timing, coinciding with active Bay of Bengal and cyclogenesis, led to deficient October rainfall.
- IMD Data: Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu, Karnataka, and Kerala experienced significant rainfall deficits in October.
- El Nino Impact: 2023, being an El Nino year with a

positive Indian Ocean Dipole, contributed to observed October rainfall deficits.

- Historical Patterns: El Nino years like 2023, 2016, and 1988 have shown common trends of low rainfall in October.
- November Forecast: Despite October deficits, a promising November rainfall forecast, based on Long Period Average, offers hope for recovery.

ADAPTATION GAP REPORT 2023

CONTEXT: 2023: Record temperatures, extreme weather devastate; UNEP warns inadequate investment, planning on climate adaptation.

HIGHLIGHTS: The report reveals a substantial gap between the adaptation finance needs of developing countries and international public finance flows, exceeding previous estimates by over 50%. Developing nations require 10-18 times more funding than current flows. Despite a projected annual adaptation cost of \$215 billion, actual finance to address these needs decreased by 15% in 2021, resulting in a widening gap of \$194-366 billion per year. The report suggests various strategies, including increased domestic expenditure and innovative financing mechanisms, to bridge this shortfall and avert significant losses and damages.

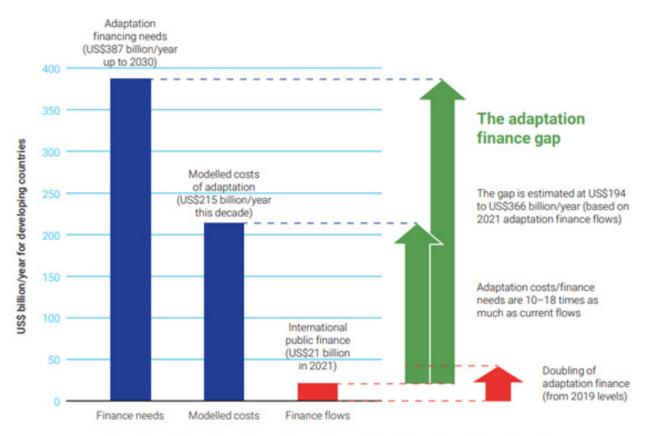
CORE HIGHLIGHTS

- AGR 2023 Overview: Comprehensive assessment and new studies estimate adaptation costs for developing countries at approximately US\$215 billion annually.
- Cost Projections: Modelling analysis anticipates a significant rise in adaptation costs to approximately US\$415 billion per year by 2050.
- Adaptation Finance Needs: AGR 2023 assesses the finance required for domestic adaptation priorities, estimating US\$387 billion per year in this decade.
- Higher Estimates: The new range of US\$215 billion to US\$387 billion per year surpasses previous AGR

estimates, constituting 0.6% to 1.0% of developing countries' GDP.

- Climate Finance Trends: International public climate finance to developing countries dropped by 15% to US\$21.3 billion in 2021, despite an increase from 2018 to 2020.
- Mitigation Finance Contrast: In contrast, mitigation finance continually increased over the same period, setting a notable precedent.
- Adaptation Finance Challenges: Low disbursement ratio (66%) for adaptation finance highlights barriers, including low grant-to-loan ratios and a lack of knowledge about adaptation policies.





2030 FOSSIL FUEL LIMIT TO DOUBLE: REPORT WARNS

CONTEXT: Global governments plan to double fossil fuel production by 2030, defying climate consensus targets. are scrutinized for alignment with Paris goals.

HIGHLIGHTS

- Upcoming Conference Focus: Dubai's Conference of the Parties aims to address fossil fuel emissions, promote renewable energy, and support vulnerable nations.
- Production Gap Report: Released by SEI, Climate Analytics, E3G, IISD, and UNEP, it assesses governments' fossil fuel production against Paris Agreement goals.

Key Countries Analyzed: Emissions trends for 20 major

producers, including China, the U.S., India, and Russia,

- Fossil Gas Transition Concerns: Governments promote
- fossil gas as a 'transition' fuel, but the report notes a lack of clear plans for eventual transition away.
- Prevalent Global Issue: The report highlights a common trend among governments, emphasizing the need for a shift from fossil fuels.
- Conference Objective: The Dubai conference seeks to establish timelines for emission reduction, renewable energy adoption, and support for climate-vulnerable nations.





CITES PARTIES URGED FOR STRICT JAGUAR CONSERVATION MEASURES

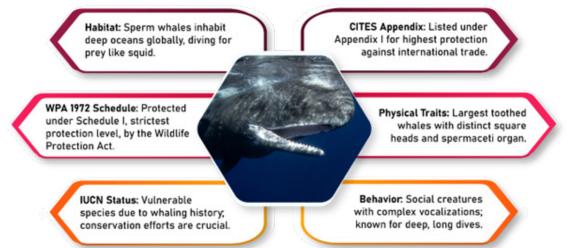
CONTEXT: CITES parties unite against illegal jaguar trade, aim to eliminate poaching through coordinated enforcement.

BACKGROUND: During the 19th Conference of the Parties (COP19) to CITES, urgent measures were directed to eliminate jaguar poaching. Parties prioritized jaguar as an enforcement focus, aiming to combat wildlife crimes and promote conservation efforts. The Jaguar Conservation Roadmap 2030 outlined steps to assess jaguar landscapes, address threats, and strengthen international commitments. Additionally, measures were taken to enhance compliance monitoring for Asian big cats, urging stricter regulations for captive tigers.

DOMINICA ESTABLISHES FIRST MARINE SANCTUARY FOR SPERM WHALES

CONTEXT: Dominica creates world's first marine protected area for endangered sperm whales, safeguarding crucial habitat.

BACKGROUND: Dominica is establishing a marine protected area of nearly 300 sq miles on its western side, designated for the conservation of endangered sperm whales. The unique defecation habits of sperm whales near the surface create nutrient-rich areas, fostering plankton blooms that capture carbon dioxide. Dominica's sperm whales are believed to contribute significantly to this ecological process.





IGBC INTRODUCES 'NEST' FOR ECO-FRIENDLY HOUSING CERTIFICATION

CONTEXT: IGBC launches eco-friendly rating 'Nest' to boost sustainable housing in India, promoting green constructions.

BACKGROUND: The annual IGBC Green Building Congress 2023, returning to the city after a decade, aims to unite construction industry stakeholders for sustainable building practices and net-zero carbon emissions. Green building rating programs cover 31 categories with a footprint of 10.42 billion sq feet in 11,586 projects, including notable structures like Chennai Central railway station and IIT Madras campus.

CONCEPT OF GREEN BUILDINGS

- Sustainable Design: Green buildings prioritize ecofriendly design, minimizing environmental impact through energy efficiency, water conservation, and responsible resource use.
- Energy Efficiency: Utilizing renewable energy sources

and advanced technologies, green buildings aim to reduce energy consumption and carbon emissions.

- Water Conservation: Green buildings incorporate water-saving technologies, such as efficient fixtures and rainwater harvesting, to minimize water usage and promote sustainability.
- Material Selection: Environmentally friendly materials, often recycled or locally sourced, are chosen to reduce the ecological footprint of construction and promote sustainable practices.
- Indoor Environmental Quality: Green buildings prioritize occupant health and well-being by ensuring good air quality, natural lighting, and comfortable indoor environments, fostering productivity and satisfaction.

SOUTH INDIA RESERVOIRS AT 50% CAPACITY DROP

CONTEXT: Major reservoirs in India at 74% capacity, 17% lower than last year, raising concerns.

BACKGROUND: Despite India experiencing 24% excess rainfall in October and 36% above-normal precipitation in September, certain regions like Tamil Nadu, Karnataka, Andhra Pradesh, Telangana, and Puducherry are facing deficient rainfall, with storage levels in South India at only 50% of capacity as of October 5, raising concerns about water availability in these areas.

HIGHLIGHTS

- Southern States' Water Woes: Lower storage levels
 impact southern States, especially worrisome for Tamil
 Nadu heading into the paddy-centric rabi season.
- Tamil Nadu's Reservoirs: Mettur reservoir at 15%, Aliyar dam at 8%, exacerbating concerns over water availability, especially in the Cauvery delta.

- Interstate Water Disputes: Water levels in Karnataka's reservoirs, crucial for Tamil Nadu, are low, intensifying the Cauvery water-sharing dispute.
- Situation in Kerala: Reservoirs improve to 26% below normal; Telangana, with a surplus, sees a drop to 41% above normal.
- National Reservoir Storage: Overall, storage in 11 reservoirs is 50% below normal, affecting various states, with regional variations.
- North India Storage: North India at 84% capacity; 10% lower than last year, 18% below the 10-year average.
- Regional Storage Comparisons: Central, western, and eastern regions below last year's levels, but at least 78% of capacity.

NATIONAL OIL SPILL DISASTER CONTINGENCY PLAN

CONTEXT: Indian Coast Guard conducts 25th NOSDCP meeting in Gujarat, addressing oil spill disaster preparedness.

HIGHLIGHTS: The meeting reviewed India's collective preparedness for oil spill contingencies in its waters, crucial due to being a major oil and chemical importer. As the third-largest crude importer and sixth-largest chemical importer globally, spills pose risks to India's Maritime Zones, coastlines, population, ecosystems, industries, and tourism. The Indian Coast Guard is committed to countering such threats through strengthened partnerships and enhanced capabilities, including building specialized vessels.

NATIONAL OIL SPILL DISASTER CONTINGENCY PLAN

- Detection System: Establish an effective spill detection and reporting system for oil and chemical pollution incidents.
- Preparedness Measures: Ensure preparedness for pollution incidents, focusing on rapid and effective response to oil pollution.
- Health and Safety: Implement measures for the safety of crews, responders, and the public, prioritizing marine environment protection.

- Response Techniques: Develop appropriate techniques to prevent, control, and combat oil and chemical pollution, emphasizing environmentally sound material disposal.
- Record-Keeping: Establish record-keeping procedures to facilitate cost recovery and maintain evidence for identifying and penalizing polluters.
- Scope Inclusions: Action-oriented plan covers reporting, communication, alerting, assessment, operations, administration, finances, and public relations.
- Responsibility Assignment: Assign tasks to relevant government departments, agencies, and stakeholders, identifying trained personnel, equipment, and resources.
- Coordination: Facilitate coordination among various departments, agencies, and local plans for a rapid, cooperative response to marine oil spills.



GLOBAL TIGER RECOVERY PROGRAM 2.0

CONTEXT: Southeast Asia faces challenges in wild tiger conservation, hindering global population recovery efforts.

BACKGROUND: The Global Tiger Recovery Program (GTRP), launched by the World Bank in 2010 under the Global Tiger Initiative (GTI), aimed to double wild tiger populations by 2022. After the GTI phased out, the Global Tiger Initiative Council assigned the Global Tiger Forum as its implementing arm. The GTRP encompassed national and transnational efforts, with Tiger Range Countries actively participating in tiger conservation initiatives.

REPORT HIGHLIGHTS ON INDIA

- Global Tiger Population: India holds over 70% of the world's wild tiger population, conducting assessments every four years since 2006.
- Population Growth: India's tiger population increases at 6-7% annually, achieving the Tx2 goal, with occupancy rising from 1,758 to 1,792 cells.
- Protected Reserves: From nine reserves in 1973, India now has fifty-three covering 2.3% of the country's area.
- Financial Allocation: Significant sovereign funding, totaling \$287 million (2012-2021), supports tiger conservation, with an annual increase from \$42.3 to \$48.4 million.

- Governance and Monitoring: Standard operating procedures, state-of-the-art monitoring protocol, and special protection forces ensure effective tiger governance.
- Goal 2022: Achieved the goal to safeguard tiger habitat, witnessing a rise from 1,411 (2010) to 3,682 (2022) individuals.
- Management Effectiveness: Regular evaluations, CA|TS accreditation, economic valuation, and carbon conservation efforts showcase effective management.
- Infrastructure Examples: The Kanha-Pench green corridor and successful reintroduction projects highlight smart green infrastructure and active management.
- International Collaboration: Bilateral arrangements and the launch of the International Big Cat Alliance demonstrate India's commitment to global cooperation.
- Challenges and Opportunities: Challenges include protection, human-tiger interface, and communication, while opportunities lie in the "Tiger @ 2047" vision and international collaboration.

PROJECT TIGER IN INDIA

- Implementing Agency: Project Tiger is implemented by the National Tiger Conservation Authority (NTCA) in India.
- Statutory Backup: The project is supported by the Wildlife Protection Act of 1972, providing legal backing for conservation efforts.
- Purpose: Project Tiger aims to ensure the conservation of Bengal tigers, their habitats, and biodiversity in designated tiger reserves.
- Initiation: Launched in April 1973, with the first nine tiger reserves, it now spans fifty-three reserves, covering 2.3% of India's area.
- Conservation Success: Project Tiger has contributed to the significant growth of India's wild tiger population, achieving international recognition for conservation efforts.

STATE FISH FOR GUJARAT

CONTEXT: Gujarat declares black-spotted croaker/ Gohl fish as state fish for economic value and conservation efforts.

BACKGROUND: The Gujarat government has declared the ghol fish as the state fish due to its economic value and uniqueness. The ghol, typically found in the Indo-Pacific region, is chosen for its rarity and to contribute to its conservation. States have the authority to designate a state fish, and Gujarat prioritized the ghol for its distinct characteristics and the need for conservation.







DELHI PLANS 'CLOUD SEEDING' TO TRIGGER RAINS DURING POLLUTION

CONTEXT: Delhi mulls cloud seeding for pollution control, a novel approach amid regional attempts.

BACKGROUND: The Delhi government is contemplating cloud seeding, or 'artificial rain,' to address air pollution. While this technique has been used in India during the monsoon and pre-monsoon seasons to induce rainfall in drought-prone areas, using it specifically to mitigate pollution is a novel approach. Light showers in Delhi-NCR prompted the consideration of this proposal.

WHAT IS CLOUD SEEDING?

Cloud seeding is a weather modification technique that involves dispersing substances, such as silver iodide or potassium iodide, into clouds to stimulate precipitation, enhancing rainfall or snowfall.

- Meteorological Assessment: Identify suitable cloud formations through meteorological data to ensure favourable conditions for cloud seeding.
- Identification of Target Area: Determine the target area where additional precipitation is desired, considering

water resource needs and regional weather patterns.

- Aircraft or Ground-Based Dispersion: Choose between aircraft or ground-based generators to disperse seeding agents, typically silver iodide or potassium iodide, into the identified clouds.
- Seeding Agent Release: Disperse seeding agents into the cloud, either from aircraft flying through the cloud or from ground-based generators releasing the agents into the updraft of the cloud.
- Ice Crystal Formation: The seeding agents promote the formation of ice crystals within the cloud, enhancing the coalescence of water droplets and encouraging precipitation.
- Monitoring and Evaluation: Continuously monitor meteorological conditions and precipitation patterns to assess the effectiveness of cloud seeding. Evaluate the impact on the target area's water resources and adjust future seeding efforts accordingly.

SHRINKING KADALUNDI MUDFLAT DETERS BIRDS

CONTEXT: Kadalundi, Kerala, faces loss of nutrient-rich mudflats, impacting migratory shorebirds as sand gradually covers the estuary area.

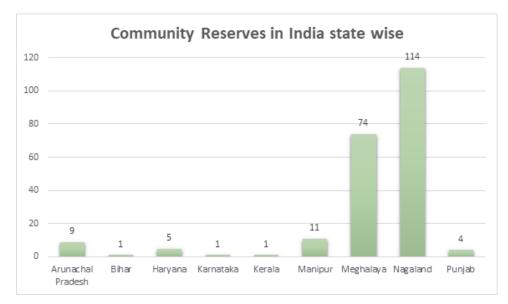
BACKGROUND: Kadalundi's status as a vital destination for migrant shorebirds is threatened as mudflats face depletion. Abundance of prey attracts birds from regions like Siberia and Mongolia. Efforts to boost ecotourism in the Kadalundi-Vallikunnu Community Reserve involve expanding mangroves. While this benefits tourism, rapid mangrove growth, aided by sedimentation, contributes to the decline of mudflat prey.

What is a Community Reserve?

A community reserve is a designated area conserved for the well-being of local ecosystems, biodiversity, and communities, often managed sustainably to balance environmental and human needs.

• Existing Community Reserves: India has 220 Community Reserves covering 0.04% of the country's geographical area, totaling 1455.16 km2.

- Purpose and Definition: Community Reserves act as buffers or connectors between national parks, sanctuaries, and forests, introduced in the Wildlife Protection Act of 2002.
- Conservation and Community Areas: Designated as conservation areas if government-owned and uninhabited, and community areas if some parts are privately owned.
- Wildlife Protection Amendment Act: The categories were introduced to address reduced protection around existing or proposed protected areas due to private land ownership.
- Role and Significance: Community Reserves serve as vital corridors for wildlife migration, subsistence use by communities, and contribute to overall biodiversity conservation in India.





PROJECT TIGER IN INDIA

- Implementing Agency: Project Tiger is implemented by the National Tiger Conservation Authority (NTCA) in India.
- Statutory Backup: The project is supported by the Wildlife Protection Act of 1972, providing legal backing for conservation efforts.
- Purpose: Project Tiger aims to ensure the conservation of Bengal tigers, their habitats, and biodiversity in designated tiger reserves.
- Initiation: Launched in April 1973, with the first nine tiger reserves, it now spans fifty-three reserves, covering 2.3% of India's area.
- Conservation Success: Project Tiger has contributed to the significant growth of India's wild tiger population, achieving international recognition for conservation efforts.





1 STOP SOLUTION

FOR YOUR UPSC EXAM PREPARATION

www.vedhikiasacademy.org

SCIENCE AND TECHNOLOGY



ZIKA GENOME REVEALS EMERGING OUTBREAK ERA

ASSESSING BIODIVERSITY WITH E-DNA SEQUENCING

NET NEUTRALITY815 MILLION INDIANS' PERSONAL DATA BREACHEDLADAKH OBSERVATORIES DETECT RED AURORA

LARGE LANGUAGE MODELS (LLMS)

DEEPFAKES

EUCLID SPACE TELESCOPE

RASHTRIYA VIGYAN PURASKAR

60 YEARS OF INDIAN SPACE PROGRAM PROGRESS

'AGNI' INITIATIVE

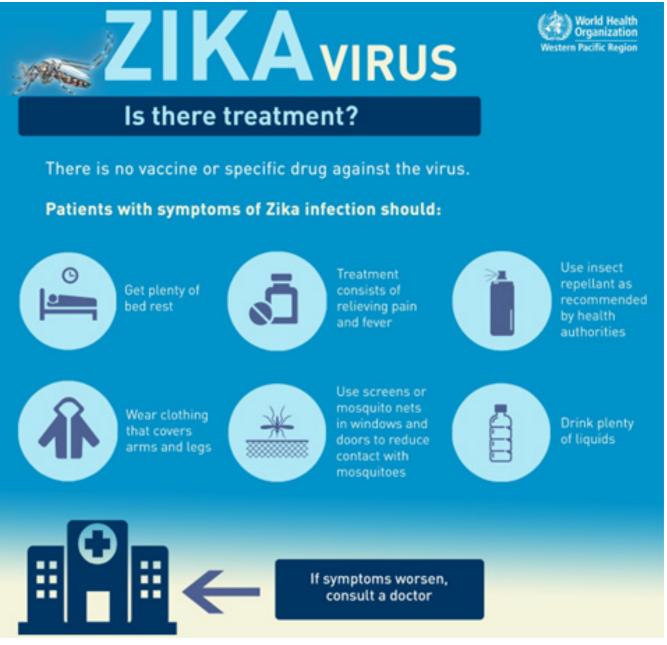
TANTALUM



ZIKA GENOME REVEALS EMERGING OUTBREAK ERA

CONTEXT: Global Zika and dengue infections, with severe 2015-2018 outbreak consequences, raise concerns amid recent multiple outbreaks in Indian states.

BACKGROUND: The Zika virus, originating in Africa, has spread globally with recent outbreaks in Indian states. Isolated in 1947, human cases emerged in 1952. Its genome, sequenced in 2007, reveals a unique structure with over 10,000 RNA bases. Diagnosing Zika relies on genetic testing due to cross-reactivity issues with antibodies from related viruses.



About Zika virus

Transmission: Zika primarily spreads through Aedes mosquitoes, active during the day, increasing the risk of infection.

Symptoms: Many infected individuals show no symptoms; others may experience fever, rash, joint pain, and headache for a short duration.

Pregnancy Risks: Zika during pregnancy can lead to microcephaly, congenital malformations, preterm birth, and miscarriage in infants.

Neurological Complications: In adults and children, Zika is

linked to Guillain-Barré syndrome, neuropathy, and myelitis.

Global Health Emergency: WHO declared Zika-related microcephaly a Public Health Emergency in February 2016, confirming its link to congenital malformations.

PHEIC Resolution: The Public Health Emergency of International Concern was declared over by WHO in November 2016.

Persistent Transmission: While global cases decreased after 2017, Zika transmission continues at low levels in various countries, especially in the Americas and other endemic regions.



ASSESSING BIODIVERSITY WITH e-DNA SEQUENCING

CONTEXT: Hyderabad researchers create non-invasive DNA sequencing method to assess total ecosystem biodiversity, detecting various organisms from small water samples.

BACKGROUND: Researchers at CSIR-CCMB, Hyderabad, have devised a non-invasive method using environmental DNA (eDNA) to assess total biodiversity in ecosystems. Traditional methods lack scalability and require expertise. The new approach filters and sequences eDNA from water, soil, or air samples, identifying organisms in the Chilika Lagoon, demonstrating its potential for comprehensive biodiversity monitoring.

ABOUT e-DNA SEQUENCING

Environmental DNA (eDNA) comprises nuclear or mitochondrial DNA released by organisms into the environment through faeces, mucous, gametes, skin, hair, and carcasses, detectable in cellular or dissolved form.

 eDNA Persistence: In aquatic settings, eDNA disperses through currents, lasting 7–21 days. Factors like UVB radiation and enzymes degrade eDNA.

- Inventory and Monitoring: eDNA offers rapid, costeffective species data collection, improving detection for elusive, rare species compared to traditional methods.
- Native Species Detection: Enhances biodiversity assessments by providing insights into distribution, abundance, and habitat requirements for lesser-known aquatic species.
- Invasive Species Early Detection: eDNA methods can screen water samples, aiding early detection of invasive species, including confirming eradication efforts and preventing recolonization.
 - Applications: eDNA sequencing proves valuable in environmental monitoring, promising standardized, efficient data collection for species distribution, abundance, and invasive species management.

4 Sequencing:

Employ high-throughput

Interpretation: Draw conclusions about species, populations, or individuals based on the genetic data obtained. Analysis:
 Process and interpret the
 sequencing data to identify
 constis information

Sequencing methods to determine the DNA sequence. Sequencing methods to determine the DNA from the collected samples using specialized techniques. Sample Collection: Extract environmental DNA from water, soil, or air samples.





NET NEUTRALITY

CONTEXT: TRAI's consultation on OTT services regulation sparks debate over revenue challenges for telecom companies and infrastructure upgrades.

BACKGROUND: Telecom companies advocate for content providers like Netflix to share bandwidth costs, claiming they benefit from telecom infrastructure. However, this argument challenges net neutrality, asserting that users already pay for internet access, and telcos can raise prices if needed. Critics argue it's a flawed attempt to double dip and could invite scrutiny from regulatory bodies.

ABOUT NET NEUTRALITY

Net Neutrality ensures equal internet access, prohibiting service providers from prioritizing or throttling content. It promotes an open internet with unbiased data transmission for all users.

 Equal Treatment: All data is treated equally, promoting fair and unbiased access to information and services online.

- Prevents Discrimination: Net Neutrality prohibits internet service providers from favoring certain websites or content, avoiding discriminatory practices.
- nnovation and Competition: Preserving Net Neutrality fosters a level playing field, encouraging innovation and healthy competition among online businesses.
- Free Speech: Net Neutrality safeguards freedom of expression, preventing censorship or manipulation of information by internet service providers.
- User Experience: Users experience consistent and unbiased internet speeds, regardless of the content they access or the services they use.
- Regulatory Debates: Net Neutrality has been a subject of regulatory debates globally, with discussions on balancing industry interests and consumer rights.

Possibilities of Net Neutrality in India	Challenges of Net Neutrality in India
 Enhanced Competition: Promotes fair competition among ISPs. 	 Discrimination: Risk of ISPs favoring certain services for profit. (e.g., throttling competitor's content)
 Innovation and Startups: Fosters a level playing field for new ventures. 	 Differential Pricing: Potential for ISPs to charge extra for specific content or services. (e.g., zero-rating partnerships)
 User Empowerment: Ensures users have equal access to diverse content. 	 Quality of Service: Concerns about maintaining consistent service quality for all users. (e.g., prioritizing certain applications)
 Free Expression: Safeguards freedom of expression by preventing content manipulation. 	 Regulatory Challenges: Crafting and enforcing effective net neutrality regulations.
Digital Inclusion: Facilitates broader internet access without discrimination.	 Technological Limitations: Balancing network management needs with ensuring fair access. (e.g., bandwidth management)

815 MILLION INDIANS' PERSONAL DATA BREACHED

CONTEXT: American cybersecurity firm reveals 815 million Indian citizens' data, including Aadhaar and passport details, for sale on dark web.

BACKGROUND: Threat actors on the dark web, including "pwn0001" and "Lucius," are selling sensitive Personally Identifiable Information (PII) of individuals, including Aadhaar numbers, voter IDs, and driving license records. The source of the data remains undisclosed, with "Lucius" claiming access to a 1.8 terabyte leak from an unidentified Indian law enforcement agency. The government is investigating the data leak.

HIGHLIGHTS

- Aadhaar Data Concerns: Despite denials, Aadhaar data leaks occurred in 2018, 2019, and 2022, raising doubts about the government's data management.
- CoWIN Portal Incident: Reports revealed personal data leaks from the CoWIN portal on Telegram, although the Health Ministry denied a breach.
- UIDAI's Assurance: UIDAI claims Aadhaar data in CIDR is secure, using advanced security tech and updating systems to combat emerging threats.
- Threat Landscape: India faces a growing cyber threat, ranking fourth globally in malware detection, with businesses experiencing a significant rise in disruptive cyberattacks.
- Government Entities Targeted: 67% of Indian government and essential services organizations saw



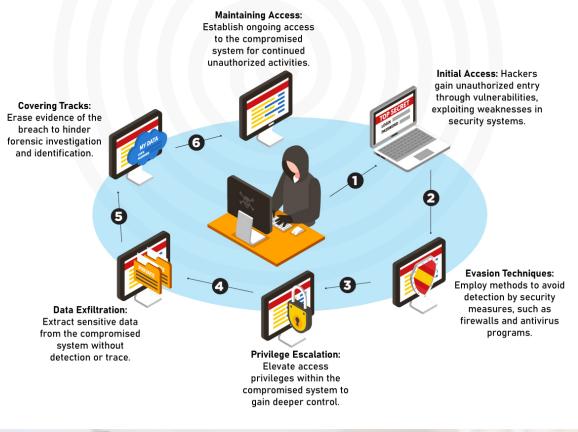
a 50% increase in disruptive cyberattacks, posing risks to digital identity.

What is Data Breach and it's Different Methods?

A data breach is the unauthorized access, acquisition, or disclosure of sensitive information, compromising its confidentiality, integrity, or availability, often resulting in privacy violations and security risks.

DIFFERENT METHODS OF DATA BREACH

- Phishing Attacks: Deceptive emails or messages trick individuals into revealing sensitive information like passwords or financial details.
- Malware Infections: Malicious software infiltrates systems to steal or encrypt data, often through infected links or attachments.
- Insider Threats: Employees or trusted individuals exploit access to compromise data intentionally or inadvertently, posing significant security risks.
- SQL Injection: Cybercriminals inject malicious SQL code into databases, exploiting vulnerabilities to access
 or manipulate sensitive information.
- Credential Stuffing: Attackers use leaked username-password pairs from one service to gain unauthorized access to other accounts due to password reuse.
- Man-in-the-Middle Attacks: Hackers intercept and manipulate communication between two parties, gaining
 access to sensitive data exchanged during the process.







LADAKH OBSERVATORIES DETECT RED AURORA

CONTEXT: Rare red aurora phenomenon observed in Ladakh's Hanle and Merak observatories, capturing attention for its unusual occurrence in India.

BACKGROUND: The Hanle observatory in India captured a rare aurora event on November 5, with red lights visible towards the northern horizon. The phenomenon occurs when plasma released during solar flares interacts with Earth's magnetic field, typically visible at polar regions. This marks the second aurora event this year at the observatory, highlighting its unusual occurrence in equatorial regions like India.

ABOUT AURORA

- Aurora Origins: The aurora, or northern/southern lights, results from solar particles colliding with Earth's upper atmosphere at high speeds.
- Solar Particle Impact: Energetic particles from the sun, traveling at 45 million mph, interact with Earth's magnetic field.
- Magnetic Field Role: Earth's magnetic field directs these particles toward the polar regions, creating stunning light displays.
- Exciting Atmosphere: Charged particles enter Earth's atmosphere, exciting gas atoms and molecules, initiating the auroral phenomenon.
- Light Generation: Similar to neon lights, excited atoms and molecules release energy as photons, producing the colorful auroras.
- Gas Mixture Influence: Neon light colors depend on gas mixtures; similarly, aurora colors are influenced by the atmospheric gas composition.
- Natural Spectacle: Aurora, a mesmerizing natural spectacle, has fascinated humanity throughout history, showcasing the dynamic interaction between the sun and Earth.

RED AURORAS

- Red Aurora Rarity: Red auroras are infrequent and linked to intense solar activity, standing out amid the more common green auroras.
- Solar Particle Interaction: Occurs when solar particles react with oxygen at higher altitudes, approximately 180 to 250 miles (300 to 400 km).
- Altitude Impact: At this height, oxygen is less concentrated, and its interaction with solar particles produces red hues, visible at higher display edges.
- Excited Oxygen: Oxygen, excited at a higher frequency, emits red light during this interaction, contributing to the distinctive red aurora.
- Association with Solar Activity: The occurrence of red auroras is often linked to heightened solar activity, adding to their relative rarity.



For More Details www.vedhikiasacademy.org | info@vedhikiasacademy.org +91 7777 875 588 | +91 9383 432 123 | 0484 - 452 7777



LARGE LANGUAGE MODELS (LLMS)

CONTEXT: Amazon invests heavily in Olympus, an advanced large language model with 2 trillion parameters, potentially surpassing OpenAI's GPT-4.

•

HIGHLIGHTS: Amazon's 'Olympus' project, a vast AI model with 2 trillion parameters, positions the company at the forefront of the AI race, surpassing OpenAI's GPT-4. Led by Rohit Prasad, the former head of Alexa, Amazon aims to integrate 'Olympus' across its platforms, potentially transforming its services and making AWS more appealing. The company also invests significantly in AI safety and research.

Concept of Large Language Models (LLMS)

A large language model (LLM) is an artificial intelligence algorithm utilizing deep learning and extensive datasets to comprehend, summarize, generate, and predict text-based content, exemplifying generative AI capabilities.

- Large Language Models (LLMs): Deep learning models pre-trained on extensive data, utilizing transformers with encoder-decoder structures and self-attention capabilities.
- Self-Learning Process: Transformers learn grammar, languages, and knowledge through unsupervised training, processing entire sequences in parallel, and utilizing GPUs for faster training.

- Flexibility of LLMs: LLMs like GPT-3, Jurassic-1, and Command are versatile, performing tasks such as question answering, summarization, translation, and content generation.
- Parameters and Size: LLMs have billions of parameters, enabling them to consider vast amounts of data, e.g., GPT-3 with 175 billion parameters.
- Representation with Word Embeddings: LLMs overcome limitations by using multi-dimensional word embeddings, recognizing relationships and contextual meanings, enhancing language understanding.
- Working Mechanism: The encoder processes text into numerical representations, and transformers understand context through word embeddings, applying knowledge in the decoder for unique output.
- Applications: LLMs disrupt content creation, search engines, and virtual assistants, demonstrating remarkable predictive abilities with relatively few prompts.

DEEPFAKES

CONTEXT: Ministry issues notices to social media platforms after Rashmika Mandanna's deepfake video, warning against online impersonation and misinformation.

BACKGROUND: The IT Rules, 2021, prohibit hosting content impersonating others and mandate the quick removal of morphed images. Actress Rashmika Mandanna expressed horror over a deepfake video, resembling her, circulating online. The clip, originally featuring a different person, highlights the rising threat of deepfakes, which use advanced technology to alter appearances and sounds, posing challenges for online platforms and individuals alike.



ABOUT DEEPFAKES

Deepfakes are deceptive multimedia, including images, audio, or video, generated by artificial intelligence. Utilizing deep learning, they convincingly depict individuals in scenarios they never participated in or expressed.

- Dual Algorithm Approach: Deepfakes employ a generator to create fake content and a discriminator to assess and refine its realism iteratively.
- Generative Adversarial Network (GAN): The combination of generator and discriminator forms a GAN, utilizing deep learning to create realistic content by recognizing patterns.
- Content Creation Process: For deepfake photographs, a GAN captures target details from various angles, while for videos, it considers angles, behavior, movement, and speech patterns.
- Video Creation Methods: Deepfake videos are made by manipulating original footage or by face-swapping the person onto another video, altering expressions and actions.
- Specific Approaches: Deepfakes can be created through source video analysis, audio cloning for voice manipulation, lip syncing, and other techniques supported by neural networks.



You have to dream before your dreams can come true..

- A. P. J. ABDUL KALAM



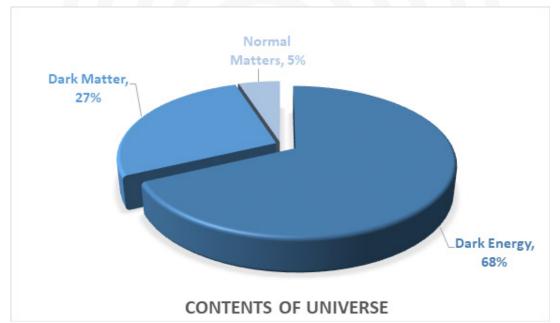
IS DEEPFAKES ALWAYS A VILLAN?

- Dual Nature: Deepfakes have both positive and negative applications, presenting opportunities for creative content but also raising concerns about misinformation and deception.
- Creative Expression: Deepfakes enable artistic expression, allowing users to explore novel and entertaining ways to produce content and enhance storytelling.
- Potential for Misuse: Deepfakes pose a risk for malicious use, enabling the creation of misleading information, fraudulent activities, and identity theft.
- Ethical Considerations: The ethical implications of deepfakes involve balancing freedom of expression with the responsibility to prevent harm, misinformation, and privacy invasion.
- Regulatory Challenges: Addressing the dual nature of deepfakes requires comprehensive regulations that distinguish between creative applications and those with malicious intent, balancing innovation and security.

EUCLID SPACE TELESCOPE

CONTEXT: Euclid space telescope releases sharpest images, probing mysteries of dark matter and dark energy, comprising 95% of the universe.

BACKGROUND: The European Space Agency's Euclid spacecraft has begun its mission to create a 3D map, covering a third of the sky, to study dark energy and matter. The project, designed to last six years, aims to understand the universe's formation and galaxy distribution. Dark matter's existence is inferred from structures like the Perseus cluster, while dark energy's discovery, linked to the universe's accelerating expansion, earned a Nobel Prize in 2011.



DARK ENERGY

Dark energy is a mysterious force constituting approximately 68% of the universe, driving its expansion. Its nature is unknown, and it contrasts with dark matter and normal matter.

- Dark Energy as a Property: Dark energy is proposed to be a property of space itself, discovered by Albert Einstein.
- Space's Amazing Properties: Einstein realized that space is not nothing; it can come into existence and possess its own energy.
- Cosmological Constant Prediction: Einstein's gravity theory predicts that empty space can have its energy, causing accelerated expansion as space increases.
- Energy Persistence: This space-related energy does not dilute with the expansion of space, leading to an

ever-increasing acceleration of the universe.

Unanswered Questions: The origin and specific value of the cosmological constant, driving the universe's acceleration, remain unexplained in current scientific understanding.

DARK MATTER

Dark matter, comprising around 27% of the universe, is an enigmatic, non-luminous substance exerting gravitational influence, distinct from dark energy and normal matter. Its composition remains unknown.

- Nature of Dark Matter: Dark matter is not visible, ruling out stars, planets, and dark clouds of normal baryonic matter.
- Baryonic Clouds Exclusion: Dark matter is not composed of baryonic matter, as no absorption of radiation is detected.



- Antimatter Exclusion: Absence of unique gamma rays from matter-antimatter annihilation rules out dark matter being antimatter.
- Black Hole Exclusion: Large galaxy-sized black holes are unlikely dark matter candidates, given the limited

RASHTRIYA VIGYAN PURASKAR

CONTEXT: Indian Government introduces "Rashtriya Vigyan Puraskar" awards to honor outstanding contributions in science, technology, and innovation.

BACKGROUND: The Rashtriya Vigyan Puraskar (RVP) aims to acknowledge significant contributions by scientists, technologists, and innovators in science, technology, and technology-led innovation. It stands as a premier recognition in these fields in India, honoring individuals or teams, including those in government, private sector, or individuals outside organizations. Eligibility extends to People of Indian Origin abroad making exceptional contributions.

HIGHLIGHTS

Award Categories:

- Vigyan Ratna (VR) for lifetime achievements.
- Vigyan Shri (VS) for distinguished contributions.
- Vigyan Yuva-Shanti Swarup Bhatnagar (VY-SSB) for exceptional young scientists.
- Vigyan Team (VT) for outstanding team contributions.

Eligibility Criteria:

• Open to scientists, technologists, and innovators in government or private sectors.

observed gravitational lensing events.

- Uncertain Identity: While characteristics of dark matter are identified, its specific nature remains unknown, posing a significant challenge in astrophysics.
- Also eligible are individuals of Indian origin abroad with contributions benefiting Indian communities.

Rashtriya Vigyan Puraskar Domains:

 Recognizes outstanding work in 13 domains, including Physics, Medicine, Engineering, Environmental Science, and others.

Nomination Process:

- Nominations invited annually from January 14th to February 28th.
- Awards announced on May 11th and the ceremony held on August 23rd.

Selection Committee:

 Rashtriya Vigyan Puraskar Committee (RVPC) headed by the Principal Scientific Adviser (PSA) and comprising department secretaries and distinguished scientists.

Award Presentation:

 Awardees receive a Sanad and a medal, with gender parity and representation from each domain ensured.

60 YEARS OF INDIAN SPACE PROGRAM PROGRESS

CONTEXT: Space sector reforms propel India's progress, positioning it as a leading nation in the global space landscape, states Jitendra Singh.

BACKGROUND: Sixty years ago, on November 21, 1963, India initiated its space journey with the launch of a Nike Apache rocket from Thumba. Subsequent milestones included the launch of India's first indigenous rocket in 1969 and the successful deployment of the Rohini satellite into orbit on July 18, 1980, marking India's entry into the group of nations with autonomous satellite launch capabilities.

HIGHLIGHTS

- Historic Nike Apache Launch: Nike Apache rocket launch in Kerala captivated the assembly and locals, inspiring some to join ISRO later.
- International Collaboration: The launch involved a U.S. rocket, French payload, and Soviet range clearance, highlighting global cooperation.
- Unconventional Setup: Mating of the rocket and payload occurred in a church turned government facility, with the priest's house serving as mission control.

- Founding Figures: Vikram Sarabhai, A.P.J. Abdul Kalam, and others witnessed the launch, marking the beginning of India's space exploration journey.
- Evolution of Launch Vehicles: SLV-3 led to ASLVs, PSLVs, and GSLVs, showcasing ISRO's progress in satellite launch capabilities.
- Chandrayaan-3 Mission: LVM-3 launch in 2023 marked a milestone, placing the Chandrayaan-3 module into orbit and leading to a moon landing.
- ISRO's Successes and Setbacks: Initial failures were termed "partial successes," but ISRO evolved, becoming an influential spacefaring nation with diverse satellite applications.
- Assured Access to Space: India, with highly sophisticated rockets, now has assured access to space, undertaking deep-space science missions and satellite applications.

"De not afraid of greatness. Some are born great, some achieve greatness, and others have greatness thrust upon them."



'AGNI' INITIATIVE

CONTEXT: CCRAS launches "Ayurveda Gyan Naipunya Initiative" (AGNI) to promote research and scientific validation for Ayurvedic practices among physicians.

BACKGROUND: The AGNI project, led by Prof Rabinarayanan Acharya, Director General of CCRAS, aims to create a platform for Ayurveda practitioners to share innovative practices and experiences, fostering evidencebased approaches. It seeks to document, publish, and scientifically validate reported practices, promoting education and mainstreaming pragmatic Ayurvedic approaches through collaboration with practitioners and relevant institutions.

HIGHLIGHTS

- AGNI Initiative: CCRAS and NCISM collaborate on AGNI, a platform for Ayurveda practitioners to report and publish innovative practices and therapeutic regimens.
- Educational Purpose: The initiative aims to document successful therapeutic regimens for academic and educational purposes in Ayurveda.
- Culture of Reporting: AGNI promotes evidence-based

practice reporting among Ayurveda practitioners, fostering a culture of scientific documentation.

- Database Creation: Identifying interested practitioners for collaboration, AGNI seeks to build a database through applications and offer training in research methods.
- Research and Validation: AGNI plans to undertake research for scientifically validating and mainstreaming pragmatic Ayurvedic practices through evidence-based appraisal.
- Registered Practitioners: India has over 500,000 registered Ayurveda practitioners, making AGNI a significant platform for knowledge exchange and collaboration.
- CCARAS Initiatives: CCARAS, under the Ministry of Ayush, has previously initiated programs like SPARK, PG-STAR, and SMART to promote scientific research in Ayurveda.

TANTALUM

CONTEXT: IIT Ropar researchers discover tantalum, a rare metal, in Sutlej river sand in Punjab, with potential significance for electronics.

HIGHLIGHTS: Tantalum, discovered by Swedish chemist Anders Ekenberg in 1802, was initially mistaken for niobium. Named after the Greek figure Tantalus, known for divine punishment, this rare metal originates from Ytterby, Sweden. Tantalum plays a crucial role in electronics due to its corrosion resistance, making it valuable for capacitors and other high-performance devices.

ABOUT METAL

- Tantalum's Rarity: Tantalum is a rare metal with atomic number 73, known for its grey color, heaviness, and exceptional hardness.
- Corrosion Resistance: Tantalum is highly corrosion-resistant due to the formation of an oxide layer when exposed to air.
- Ductility: In its pure form, tantalum is ductile, allowing it to be stretched into thin wires without breaking.
- Chemical Immunity: Tantalum is nearly immune to chemical attack at temperatures below 150°C and is resistant to various acids except hydrofluoric acid.
- High Melting Point: It boasts an extremely high melting point, surpassed only by tungsten and rhenium.

Applications of Tantalum

- Electronic Sector Usage: Tantalum, vital in electronics, creates capacitors storing more electricity in compact sizes.
- Substitute for Platinum: Tantalum, with its high melting point, substitutes costly platinum in various applications.

Diverse Industrial Applications: Used in chemical

- diverse applications. Biocompatibility: Tantalum's non-reactivity with bodily
- fluids makes it ideal for surgical equipment and implants. Medical Implants: Employed in medical applications,

plants, nuclear power plants, aircraft, and missiles for

 Medical implants: Employed in medical applications, tantalum contributes to surgical equipment and the production of artificial joints.





1 STOP SOLUTION

FOR YOUR UPSC EXAM PREPARATION

www.vedhikiasacademy.org





ASSERTION-AND-REASON TYPE

Ø

R

.sr

8

S



ASSERTION-AND-REASON TYPE

n(S)=4! = 24

Each question consists of two statements, namely, Assertion (A) and Reason (R).

For selecting the correct answer, use the following code:

(aBoth Assertion (A) and Reason (R) are the true and Reason (R) is a correct explanation of Assertion (A).

(b)Both Assertion (A) and Reason (R) are the true but Reason (R) is not a correct explanation of Assertion (A).

(c) Assertion (A) is true and Reason (R) is false.

(d) Assertion (A) is false and Reason (R) is true.

QUESTION 01:

Assertion: There are 4 addressed envelopes & 4 letters for each of them. The probability that no letter mailed in its correct envelope is 3/8

Reason: The probability that all letters are not mailed correctly is 23/24.

QUESTION 02:

Assertion: Two dice are thrown simultaneously. There are 11 possible outcomes and each of them has a probability 1/11.

Reason: Probability of an event (E) is defined as P(E) = (Number of favourable outcomes/Total number of possible outcomes).

QUESTION 02:

Assertion: In rolling a dice, event A = $\{1, 3, 5\}$ and event B = $\{2, 4\}$ are mutually exclusive events.

Reason: In a sample space, two events are mutually exclusive if they do not occur at the same time.

QUESTION 04:

Assertion: The value of $(25)^3 + (-16)^3 + (-9)^3$ is 10800.

Reason: If a + b + c = 0, then $a^3 + b^3 + c^3 = 3abc$.

QUESTION 05:

Assertion: 3 + 7 = 9 is a statement.

Reason: A sentence that can be judged to be true or false, but not both, is called a statement.

QUESTION 06:

Assertion: If (x - 1) is a factor of $p(x) = x^2 + kx + 1$, then k = -2.

Reason: If (x - a) is a factor of p(x), then p(a) = 0.

QUESTION 07:

Assertion: If (x - 2) is a factor $p(x) = x^3 - 2x + 3k$, then k=-4/3.

Reason: If p(x) is divided by (x - a), then the remainder is p(a).

SOLUTION

SOLUTION 01:

The correct option is B

Now number of ways in which all letters go to correct envelope is only one way.

- The probability that all letters are correctly placed in right envelope = 124
- The probability that all letters are not correctly placed in right envelope = 1–124 = 2324
- Reason (R) is correct

Again the, probability that out of n letters & n envelopes none of them enter in the right envelop.

= (1–11!+12!–13!+14!+...+(–1)nn!),n≥2 using n = 4

P (None of the letter go to the exact envelop) =12-16+124

= 12-4+124 = 924= 38

Assertion (A) is also correct but Reason (R) is not the proper explanation of the Assertion (A).

SOLUTION 02:

The correct option is D

If two dice will be thrown simultaneously then the total number of possible outcomes is 36 (6 x 6) and probability of each outcome is equal to 136.

Probability of an event (E) is defined as P(E) = (Number of favourable outcomes/Total number of possible outcomes).

Assertion (A) is false and Reason (R) is true.

SOLUTION 03:

The correct option is A

Both assertion and reason are true and reason is the correct explanation of assertion.

 $A = \{1,3,5\}$ and $B = \{2,4\}$

Here, $A \cap B = \Phi$

A and B are mutually exclusive events.

Assertion (A) and Reason (R) are the true and Reason (R) is a correct explanation of Assertion (A)

SOLUTION 04:

The correct option is A Assertion: Let: a = 25, b = -16 and c = -9Now, a + b + c = 25 + -16 + -9 = 0 a + b + c = 0 a + b + c = 0 a + b + c = 3 a + b + c = 3 a + b + c = 3 a + b + c = 3 a + b + c = 3 a + b + c = 3Thus, we have: a + b + c = 3 a + b + c = 3 a + b + c = 3 a + b + c = 3 a + b + c = 3Hence, Assertion is true. Reason: If a + b + c = 0, then $a^3 + b^3 + c^3 = 3abc$. Assertion (A) and Reason (R) are the true and Reason (R)

is a correct explanation of Assertion (A)



SOLUTION 05	Reason: If $(x - a)$ is a factor of $p(x)$, then $p(a) = 0$.									
The correct option is A	Assertion (A) and Reason (R) are the true and Reason (R)									
3+7=9 is obviously false and this is a statement.	is a correct explanation of Assertion (A).									
Using the laws of natural numbers, this statement can be	e SOLUTION 07:									
proved to be false.	The correct option is B									
Thus, 3+7=9 is a statement since this statement is false, and it is not true at the same time.	Assertion:									
	Let:									
Assertion (A) and Reason (R) are the true and Reason (R) is a correct explanation of Assertion (A).	p(x) = x3 - 2x + 3k									
SOLUTION 06:	Now,									
The correct option is A	X - 2=0=>x=2									
Assertion:										
Let:	x-2is a factor of px. => p2=0=>23-2×2+3k=0=>8- 4+3k=0=>4+3k=0=>k=-43									
$p(x) = x^2 + kx + 1$										
Now,	Hence, Assertion is true.									
x-1=0=>x=1	Reason: If $p(x)$ is divided by $(x - a)$, then the remainde $p(a)$.									
x-1is a factor of px.=>p 1=0=>12+k×1+1=0=>1+k+1=0=>k+2 =0=>k+2	Both Assertion and Reason are true, but Reason is not a correct explanation of Assertion.									
Hence, Assertion is true.										

SPACE FOR ROUGH WORK





BUSINESS OBJECTIVE AND WHISTLE BLOWING



BUSINESS OBJECTIVE AND WHISTLE BLOWING

ETHICAL ISSUES

Ethical issues in business are a situation where a moral conflict arises and must be addressed. In other words, it is an occasion where a moral standard is questioned. Ethical issues occur when a given dec you obtain or create in connection with your activities for ICICI Group, in accordance with the applicable law. Your obligation to protect ICICI Group's proprietary and confidential information continues even after you leave the Group, and you must return all proprietary information in your possession upon leaving ICICI Group.

- Proprietary and confidential information include any system, information or process (sensitive in nature) that gives ICICI Group an opportunity to obtain an advantage over competitors; nonpublic information about ICICI Group businesses, its customers and its employees, any other nonpublic information received.
- Proprietary and confidential information about ICICI Group, a customer, supplier or distributor, should not be disclosed (even with best of intentions) to anyone (including other employees) not authorized to receive it or has no need to know the information, unless such disclosure is authorized by the customer or is required by law, appropriate legal process or appropriate internal authorities.
- Intellectual property of ICICI Group such as trade secrets, patents, trademarks and copyrights, as well as business, research and new product plans, objectives and strategies, records, databases, salary and benefits data, employee medical information, customer, employee and suppliers lists and any unpublished financial or pricing information are some examples of proprietary and confidential information that need to be protected.
- Unauthorized use or distribution of proprietary information violates the internal policies and could be illegal. Such use or distribution could result in negative consequences for both ICICI Group and the individuals involved, including potential legal and disciplinary actions.
- Acts of ignorance that could lead to leakage of such proprietary information, especially through electronic means – like e-mails, web uploads, removable media (e.g. CD/DVD/pen drive) etc., may lead to investigation and probe against the employees.

Conclusion:

ICICI Group is committed to adoption of fair employment practices. It ensures diversity of workplace through efforts to recruit, develop and retain the most talented people from a diverse candidate pool. It upholds the principle that advancement is based on talent and performance and there is a commitment to equal opportunity. ICICI Group is committed to prohibition of harassment and intimidation of employees in the workplace. ICICI Group discourages conduct that implies granting or withholding favours or opportunities as a basis for decisions affecting an individual, in return for that individual's compliance. Such action is an easier form of harassment to identify because it takes the form of either a threat or a promise, whether explicit or implied.

ICICI Group has a Sexual Harassment Policy that prohibits unwelcome advances, requests for sexual favours,

or other verbal or physical conduct where such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile or offensive working environment.

ICICI Group considers safety of employees as the primary concern. ICICI Group is committed to safety of employees and expects its businesses and employees to comply fully with appropriate laws and internal regulations

BUSINESS OBJECTIVES

Business objectives are the specific and measurable results companies hope to maintain as their organization grows. Entrepreneurs and business leaders must track performance in every part of their business to make sure they're moving in the right direction.

Business objectives act as a compass for the modern company, dictating how the organization should allocate strengths, weaknesses and opportunities that may be available. Most of the time, objectives remain the same until the company's circumstances change.

Examples of popular business objectives include:

- Revenue objectives: Maintaining consistent profitability is essential for any business. Companies cannot be profitable without consistent profit. Measuring revenue is a great way to track the sustainability of a firm.
- Operational objectives: Operational objectives include making sure that the logistical elements of your business are up to scratch. For instance, it might mean ensuring your supplies will arrive from a manufacturer at the same time each month. These objectives keep the company running smoothly.
- Productivity and performance: Employees are the lifeblood of a business. Making sure that employees remain productive drives revenue and improves customer satisfaction. Measuring employee satisfaction and setting goals for each team ensures efficiency and productivity.
- Customer satisfaction: The customer is always a top priority in any business. Some organizations regularly survey their clients to ensure that they're making the right impression and driving loyalty.

Concepts and application:

All internal departments worked together to overcome the allegation and re- launch the same product in a way that it would earn the trust of its key consumers and stakeholders:

In the last three decades Maggi has grown drastically because it did not have any serious competition. Maggi has grown exponentially to become a generic brand, and has single-handedly taken the instant noodles category from being almost non-existent to a Rs. 1,200 crore one, of which it currently has, as per industry estimates, a 70% share, approximately. Initially Maggi only had to face competition from the Japan based Nissin

Group's 'Top Ramen', and the Nepal based CG Foods 'Wai-Wai' Noodles. Wai-Wai, till recently, was restricted to the eastern market of West Bengal and Sikkim, where it controlled 70% of the market. Its strategy was to first build-up the distribution network, which it successfully did, the brand was available on the shelves of super stores,



as much as in the local Kirana stores.

- Innovative Promotion Techniques Creative methods of promotion should be employed in order to attract the attention of the public. Promotion should be done at public places, games should be organised, prizes should be given out, road shows should be done, mascots should be used, etc. Doing this will help Maggi to create a new image in the mind of the public.
- 2. New Packaging As Maggi is coming back into the market, it should come back with a change. It should change the packing design, so that the people also think that it is something different. New design will also lead to creation of brand and will have a positive psychological impact on the public. Public would always want something new or some variation in the product which it is using.
- 3. Campaign Maggi should use this issue as an opportunity and start a campaign with the title 'Maggi is Back, Back with a Bang'. This would help them gain the popularity and would help in regaining the lost image among the customers. A campaign for positive publicity is required to counter the negative publicity campaign which has happened in the past. However, the campaign will not be able to show immediate results but would take time.
- 4. File a Case against the FSSAI Nestle should file a case against Food Safety and Standards Authority of India (FSSAI) as they have wrongly frame and were pulled to the court. They should also claim for damage of their brand name in the market. It is also said that Baba Ramdev is behind the Maggi ban. As he has close links with BJP, he has played the role of a catalyst, so that Maggi could be banned, for some reason or the other, and during this course of action he could introduce his noodles, which is called 'Atta Noodles'. After it launch, it is also in news for the wrong reasons.
- 5. Corporate Social Responsibility Brand image is built when the customers and public have a good and positive opinion about the brand and company. Nestle should initiate certain activities relating to social responsibility under the banner of Maggi. This would ultimately help the company to come in contact with the general public and would help in developing a positive image about the brand. The CSR campaign would not should immediate results, but would gradually add value to the brand and company as a whole. However the objective of Corporate Social Responsibility is not to build brand it would be part and parcel of the activity.

Conclusion:

Maggi has become the most relevant, trusted and valuable food brand in India. It has understood the changing lifestyles of generations, provided products that the family enjoys and constantly innovated products that add value. Maggi the hot favourite among all the children in the country, noodles have come a long way since their introduction in 1983. It was considered as snacks in many households and a basic diet in many other homes. As people became busier and busier day by day, packaged and Ready To-Eat foods also began to gain quite a formidable share in the Indian food industry. It is because of Maggi that instant noodles have become a part of the food habit of Indian homes. Maggi has moved from being a 5 pm snack, to being a part of breakfast, lunch, and dinner, of the average Indian household. But in the recent past, the ban on Maggi has created a negative impact of Nestle and has created waves in the fast food industry. The case study is an effort to explore the various issues, possibilities and opportunities for Maggi.

WHISTLE-BLOWER

Whistle blowing refers to the act of organisation members, either former or current, disclosing information on illegal and unethical practices within the organisation to parties internal or external to the organisation, who can take action. It is becoming increasingly common as more and more employees speak out about their ethical concerns. It cannot be denied that whistleblowing is accompanied by a range of problems, for both the whistle-blower and the organisation. However, it can be argued that whistleblowing is an important and valid method of endeavouring to control possible unethical behaviour by organisations, as well as helping to establish a level of social responsibility. For these reasons, it is important for society to maintain a level of support and encouragement towards whistle-blowers, so that their often valuable contribution towards eliminating corporate wrongdoings can continue.

Concepts and application:

The ethical reason/s for becoming a whistle blower:

A whistle blower once testified in a California court about how his boss had regularly ordered him to discard some of the company's toxic waste into a local storm drain rather than dispose of it properly. Why, the judge wanted to know, had the man finally decided to step forward after having participated in this illegal dumping for years. "Well," the man explained, "I was fishing with my grandson, and it suddenly occurred to me that the waste I was dumping was going to pollute the water so that he might never be able to go fishing with his grandson."

Whistle blowing has to do with ethics because it represents a person's understanding, at a deep level, that an action his or her organization is taking is harmful – that it interferes with people's rights or is unfair or detracts from the common good. Whistle blowing also calls upon the virtues, especially courage, as standing up for principles can be a punishing experience. Even though laws are supposed to protect whistle blowers from retaliation, people who feel threatened by the revelations can ostracize the whistle blower, marginalizing or even forcing him or her out of public office. On the other hand, there have been occasions when the role of whistle blower has actually catapulted people into higher office and has earned the respect of constituents.

Conclusion:

NO, as an employee if I become a whistle blower, Then I am not being disloyal towards my employer because any potential whistle blower must realise that a well thought-out approach is both essential and practical. Firstly, be positive the situation is one that warrants whistle blowing. Secondly, carefully examine the motives behind the whistleblowing in order to ensure that they are genuine and can serve the public interest. Next, verify and document all information, as this will help to add further credence and strength to disclosures (CJC 1999, p. 13). Fourth, determine to whom the wrongdoing should be reported, and if the internal or external route is best. The allegations should then be stated in a clear, concise and objective manner. Lastly, ensure that all appropriate guidelines have been followed in reporting the wrongdoing.

BUSINESS ETHICS



Business ethics is the study of appropriate business policies and practices regarding potentially controversial subjects including corporate governance, insider trading, bribery, discrimination, corporate social responsibility, and fiduciary responsibilities. The law often guides business ethics, but at other times business ethics provide a basic guideline that businesses can choose to follow to gain public approval.

- Business ethics refers to implementing appropriate business policies and practices with regard to arguably controversial subjects.
- Some issues that come up in a discussion of ethics include corporate governance, insider trading, bribery, discrimination, social responsibility, and fiduciary responsibilities.

Concepts and application:

Reasons to showcase that study and understanding of ethics makes for a better manager, good business and happy society:

A number of factors play a part in making a business profitable, including expert management teams, dedicated and productive employees, consistent consumer demand, and a careful watch over the bottom line. In addition to these well-known business practices, companies that implement a management philosophy that relies heavily on business ethics are proven to be more successful than those that operate in an unethical manner. Although it may not be the first variable considered in analysing the profits of a company, business ethics is an equally important catalyst to the success of a company.

The leadership of an organization holds the key to its long-term success, and remaining consistent

with a management philosophy built on a foundation of ethics creates a positive example for all workers. Ethical accounting practices, treatment of employees, interactions with the public, and information disseminated to shareholders are all responsibilities of the leadership team and can have a direct impact on the overall profitability of the company. When these integral aspects of a business are not performed with a resounding theme of business ethics from the top-down, each facet of the business beneath the management team has a greater potential to falter in the short or long-term.

Companies would be nothing without shareholders and investors, and as such, operating with business ethics in mind is most important when interacting with these crucial players. It is common for the profitability of publicly traded companies to decline rapidly when they encounter situations where information regarding unethical behaviour is discovered. When confidence is lost, it can be a struggle for a company to regain the trust of the public, its investors, and its shareholders; profitability may take years to build up again.

Conclusion:

Employee happiness can also have an impact on turnover and retention, as unsatisfied workers are more prone to seek out other opportunities, regardless of higher pay or benefits offered by their current employer. Continuous recruitment and training of new employees can reduce the capital a company can otherwise spend on revenue- producing activities, ultimately shrinking its long-term profits. Implementing a sound ethical policy at a company ensures a positive impact on all stakeholders, from investors to employees to consumers. Companies that lay the framework for business ethics in all facets of operations are more likely to become and remain profitable than those that conduct business in an unethical manner.





You have to dream before your dreams can come true..

- A. P. J. ABDUL KALAM



START YOUR JOURNEY WITH THE BEST

INDIA'S TOP MOST CIVIL SERVANTS FOR COACHING

Head Office: Vedhik IAS Academy Mercy Estate, MG Road, Ravipuram, Ernakulam-682 015, *Corporate office:* **Vedhik IAS Academy** Samkalp Bhawan, Plot No.15, Sector 4, Rama Krishna Puram, New Delhi,Delhi-110022 Regional office Vedhik IAS Academy 202, Raheja Chambers, 12, Museum Road. Bangalore -560001. Karnataka, India.

www.vedhikiasacademy.org

GCC Office: Bobscoedu,

Bobscoetta, Bobsco Trading & Contracting Co. W. L . L Office 22, Dream Tower 1, Road: 2701, Adliya, Kingdom of Bahrain www.bobscoedu.com

TOPICS OF THE MONTH



THE NEED OF RURAL DEVELOPMENT FOR NATION'S DEVELOPMENT

- DR. Alexander Jacob IPS

STRUGGLE OF SCIENCE AND CULTURE IN INDIA

-DR. Babu Sebastian

ONLY THOSE WHO CAN DELIVER MUST RULE

-DR. G. Prasanna Kumar IAS

FUTURE WARFARE: COMMAND, CONTROL, COMMUNICATION AND INTELLIGENCE

-Mr.Solomon John



THE NEED OF RURAL DEVELOPMENT FOR NATION'S DEVELOPMENT

India is mainly an agricultural country. About 70% of India's population lives in villages, spread all over the country like stars in the night sky. Villages cover about 96% of India's geographical area. However, in spite of their being in majority, they have been lagging behind in the fields of education, civic amenities, medical facilities and economic well-being. The vast majority of India living in rural areas cannot be taken lightly in any planning aimed at socioeconomic development of the country. There are number of initiatives of the government for rural development yet even today they are lacking in the basic needs. One of the reasons for this failure is that there is no involvement of the rural people in the process of decision making which affect them. Another challenge before the government is implementing sustainable development model which will insure integral development and growth.

India has been independent for more than 60 years now yet the rural India of today is still short of basic amenities, like drinking water, electricity, roads, housing, food and clothing. It is now increasingly being felt that no planning can be successful unless more and more attention is paid to rural development schemes and poverty improvement programs.

Rural development seeks to transform all the sectors of rural economy -the primary sector, the secondary sector and the tertiary sector. It is concerned with the improvement of the standard of living of the ruralites through the provision of health and medical facilities, employment opportunities including vocational training; educational facilities etc. It brings about significant improvement in the socio- economic conditions of the scheduled castes, scheduled tribes, the landless agricultural labourers and the marginal and small fanners.

Agricultural development constitutes the crucial aspect of rural development. Agricultural development is possible by better seeds, adequate fertilisers, manures, and pesticides, adequate supply of water and effective completion of land reform measures. The government of India is committed to the cause of bringing about rapid and sustainable development in the rural areas. The ministry of rural development is engaged in implementing a number of schemes, which aim at enabling rural people to improve their living standards. One of the earliest steps taken was to bring about the Community Development Programme, which was started in 1952. Its purpose was to ensure the supply of improved high quality seeds, modern implements and chemical manures to farmers. In addition, irrigation facilities were improved, facilities were provided for the upliftment of livestock and small-scale village industries. Ministry of Rural Reconstruction was formed in August 1979 whose major task was in the field of rural development.

Besides this another programme i.e. Integrated Rural Development Programme (IRDP) has been launched by government in 1979. It aims at creating additional employment and raising the income levels of the identified target groups, consisting of marginal and small farmers, agricultural labourers, small artisans, and persons belonging to scheduled castes and tribes. The launching of this programme was widely welcomed as a better deal for the rural poor.

Education removal of poverty and speedy socio economic progress in the goal with which the development programs are being implemented through a multi- pronged strategy, reaching out to the most disadvantaged sectors of the society. The programmes were also assisted internationally e.g. USA has been giving liberal loans for projects, which have been initiated in the villages. Besides economic scheme, a rural health scheme was launched in the country, which aimed at training of community health workers. Huge priority is being accorded to provide clean drinking water, rural housing and road.

The social security programs are being implemented for providing assistance to the destitute and down trodden. Assistance and encouragement to voluntary agencies and training of functionaries' forms part of the emphasis on accelerated rural development. The ministry is constantly endeavouring to empower the Panchayat Raj institution in term of functions, power and finance. In the new initiative, the Gram sabha has become the most significant institution. By effecting changes in the socioeconomic institutions, rural development seeks to change the socio-economic structure of the rural community. Non-Government Organization self-help group and Panchayat Raj institution have been aware and playing adequate role to make participating democracy meaningful and effective. Development of waste lands desert and drought prone areas has been undertaken along with the land reforms. The effectiveness of the rural development programmes necessitates political non-interference.

The success of the rural development programmes depends on the co-operative course and attitude among the ruralites. The functioning of the co-operative societies goes a long way in improving the conditions of the vulnerable sections of the rural set-up. Rural development programmes demand the active participation of the ruralites. While formulating these programmes the opinions, attitudes, drives and interests of the rural people should be taken into account. Further, dedicated and committed village leaders should come forward to guide the masses for bringing about rural development.

By way of historic approach to the task of ensuring a sustainable development of land rural development ministry has created two departments i.e. department of land resources and Department of drinking water. Supply in addition to the department of rural development. This will facilitate coordinated policy interventions as well as quality improvement in the related development schemes. Keeping in view the betterment of backward and the most backward section of the society in the rural areas of the country, rural employment guarantee scheme has been implemented through a parliamentary act. Under the scheme, a person under a village household will get hundred-day employment. All the existing employment scheme of the central government will merge into this mega scheme.

The rural development is also area culture specific, which provides for alternative regional strategies for spatial-functional organization. The goals of the economic equity, social justice and self-reliance demand that man should be considered as the focus of development and the poor and the deprived should get the top priority. It involves extending the benefits of development to the poorest among those who seek a livelihood in the rural areas.

Integrated rural development embraces all the activities of enrichment and betterment of the overall quality of rural life through appropriate development of work force, resources, infrastructural facilities and provisions of minimum need and livelihood. It has farreaching socioeconomic and political implications for the life of the ruralites. The concept of integrated development addresses itself to various rural problems like widespread



poverty, unemployment, illiteracy, exploitation, inequitable distribution of land, poor health conditions etc. It signifies that various facets of rural development are connected.

The issue is partly related to the peculiar aspect of the fiscal position of local bodies while they are expected to take up largest share of development activities in a decentralized framework, their own revenue mobilization capacity does not grow correspondingly. The working coup has therefore suggested that the powers and functions of

STRUGGLE OF SCIENCE AND CULTURE IN INDIA

Modern era is the age of economic development based on Science. India is hurriedly entering into the scientific era of economic development. It gives rise to many questions among which the relation between science and culture is the biggest. The benefits of science are many and they help in overcoming superstitions and false beliefs and help in establishing scientific mind-set, but at the same time they are also creating a materialistic culture in which people are losing hope. This trend is dangerous and it becomes important to temper scientific development with cultural values for sustainable development.

Science has contributed a great deal to human welfare. It has produced miraculous cures for diseases, which for a long time, were regarded incurable. It has brought the marvels of industrializing, technology and space exploration. But Science has created as many problems has it has helped to solve. The knowledge and power of science need to be harnessed to the service of man through the culture. The impact of Science on a society or for large sections of the people in the society could be good or bad depending upon the social relations and the cultural patterns between the various constituents of society. At the same time the advancement in science and technology will compulsorily change the culture as it will force superstition and false beliefs out of it and bring in scientific curiosity. This change of culture is seen as a threat by many. For example, take the issue of honour killing or gender equality. Persons in India defend these on the basis of culture and traditions. Consequently, the society accepts these evils as normal and any attempt to introduce change is seen as going against the culture.

In this era of scientific development, the distance between people is lessening. The countries which have not entered completely into the age of industries and science have a close relation between culture and religion. In them the religion influences culture and in turn is influenced by it. In such a setting scientific enquiry is seriously discouraged. Science discourages this by taking away the irrational fear away from the hearts of the people. This creates problems for the fundamentalists want to maintain the status quo and many times they want to go back to the days of the past in which they held all the power for example Catholic Church during the dark ages in Europe or the issue of ISIS today.

These fundamentalists hold that science has relegated ancient pantheons to the anthropomorphic lumber-room and has been unable to perceive the mystical and psychological significance of these pantheons. Science has functioned like a minor Jesus, producing miraculous cures for diseases which, for a long time, were regained incurable. Applied science, which ushered in eras of industrialism and technology and all marvels of space exploration. All this is taking the focus away from the religion and the culture. People are no longer willing to obey or even hear the so called wisdom of the ages. Women are not willing to be confined to their homes, they along with low caste people have forgotten their place. the local bodies should be enlarged significantly. It has also recommended greater power of taxation and venues for non-tax revenue to these bodies and provision of united grants. So there are many such programmes aiming at the rural upliftment, but what all the need is proper infrastructure and a proper system of monitoring and evaluation. Then, there is no doubt that socio-economic reforms can uplift the rural masses from their resent position. Although it is a challenging task it is not impossible.

The position held by the high caste people is reducing. All because the development in science and arts are forcing people to think and thinking is the greatest challenge to the fundamentalists.

Science is contributing in feeling man from the horror of numerals diseases hitherto unknown. Applied science has in large measure, banished as much joy from life as the human misery it has alleviated at the same time it has turned man into a machine for making more machines. Some feel that unless science is guided and regulated by the majestic voices of culture that have been heard through the ages, there can hardly be any hope for peace and delight in this world. Nor can be there any future for the diffusion of culture among the larger masses of mankind.

But take the example of India. Even in the 21" century India is suppressed by the old values, thoughts, superstitions and cultures in economic, social and cultural fields. These values do not support modernisation and development. Rather they go against the culture of scientific enquiry and progress. Take the examples of females. There are number of superstitions associated with their menstruation cycle of females. They are not allowed in the kitchen during their cycles (milk will cuddle, pickle will spoil) they are not allowed to enter places of worship, they are considered to be unclean etc. All of this has been disproven by science, but the protectors of cultures are not interested in change. India has to overcome with all these negative approaches to get into the scientific era with a great speed.

If we go through the history of India it becomes clear that the cultural heritage of India has always been against the intellectual youths of the country. The focus since ancient times was on protection of culture, rituals and traditions. In this focus there was no place of questioning and diversion. All the questions should be limited within the confines of the thinking of the majority. For example, take the concept of single God given by Christians and Muslims. This is against the ancient Indian understanding and the trend is to make Allah and Christ as one of the Gods within the Hindu system of Gods. Or take the example of caste system. Rather than doing away with the evil the trend is to show it as the correct system which has become corrupted even when all the evidence points to different direction.

Science is based on reason and experimental observation. This is an important factor in any cultural patterns and individuals will turn obscurantisms if reason is not given its proper place in the development of a balanced personality. But there are other aspects of life which reason cannot possibly perceive. The dialectic of the heart of which Goethe spoke, and the field of intuitive perception are areas which reason can well define vividly, but not perceive in its own right. Science no doubt has helped in solving many problems but it has created as many problems as it has helped to solve. It is true that all higher life will be crippled if it is not supported by material well-being. But an undue



stress on materialism may bring about economic barbarism in the absence of controlling mental and moral ideas. An undue stress on reason may bring about a resurgence of barbarism under cover of a utilitarian civilization.

Science has yet to tackle various levels of reality in the total range of existence. Sociology works today on the basis of certain new tendencies created in the west. Vitalistic egoism and collectivism, these tendencies were responsible for Nietzsche philosophy and for some forms of imperialism that prevailed during the last few centuries.

ONLY THOSE WHO CAN DELIVER MUST RULE

Don't find fault, find the remedy- Henry Ford

Whenever and wherever human beings are gathered together in large numbers, they need leadership. Even children have school's captains. Armies need Generals. Civilians need governments. Men whether of the East or the West, require to be led and each group 'throws up' its own leaders in each succeeding generation. Annals of history stand testimony to the fact that only those who could deliver have ruled successfully & peacefully for longer period. An effective leader makes a nation, a state, prospers. successful leader can do wonders, can change the fortunes of nation and its masses and an unsuccessful one can bring the heaven down to earth.

The question of "Who should rule" has always occupied centre stage in political philosophy. In his famous political work famous as The Republic, Plato argues that kings should become philosophers or that philosophers should become kings, or philosopher kings, as they possess a special level of knowledge, which is required to rule the Republic successfully. Another famous political thinker Nicolas Machiavelli's was of the point of view that a leader should be intelligent, strong, caring and devoted to his subjects. Although different political thinkers have respective opinions about the qualities of a good ruler/ leader, all believe that a leader should help his nation grow and thrive.

In real sense, a leader who is elected to rule is expected to act in welfare of people. Modem world is a collection of welfare states. True democracy is characterized by welfare of every section of society. Care of disabled people, protection of women and weak, both physically and mentally, prudent economic policies, power to maintain law and order, power to save country from external aggression are all parts of duties of a ruler. Those who successfully impact these duties are provided with popular mandate to rule again and again and those who fail are displaced by people.

There are ample examples to show that those rulers who could not deliver their duties properly either dethroned themselves or led state to situation of crisis. They performed abysmally when they were given a chance to rule. This could not keep them on the top for a long period of time. Their follies were not tolerated by their own people for a long time. This resulted in many failed states of our times i.e. Somalia, Ethiopia, states of Arabian world are examples of failed leadership contrary to it. The crisis handling mechanism in such states fared poorly. The leaders present in these states at the time of uprisings lost the trust, unable to communicate with their people were forced to go and in certain instances they had to lose their lives. But at the same time, there are also examples of leaders, who bring the state to prosperity from state of crisis. To name a few are Fidel Castro, Che-guerra, Jawahar Lal Nehru, Hugo The Scientific world of today is moving forward to make the global village comfortable. The tension within India arises become people want to hold on to the traditions and culture which has already changed. When people are moving ahead towards progress we are moving backwards. In India we do not have a National University for promoting science but we have university for promoting yoga. The development of India as a modern nation will be impossible without the scientific changing of the culture at the same time this change has to be tempered with the ethical framework of the culture.

Chavez are few such leaders.

If we see in Indian context Mohandas Karamchand Gandhi, better known as Mahatma Gandhi, was born an ordinary boy with a determination to excel at what he did. After completing law from London, he became the most important part of the Indian freedom struggle against the colonial rule. His policy of non-violence and protest through civil disobedience eventually succeeded when he led his country to freedom in 1947. His main characteristics were resilience, knowledge, people-skills, motivational approach and leading by example. But it was not only the qualities list which made them great but he was able to translate these qualities into the performance.

The list of traits what makes leader successful one can be endless but there are certain qualities which every leader must possess to win the hearts to people, to perform and deliver what is expected from him.

One of the single most important aspects of a good leader is dependability. To be a leader means, you have a list of responsibilities, so people have to depend on you to take care of these responsibilities. Sometimes, being a leader comes with hard decisions, but it's your responsibility to make those decisions. If people can depend on you to get them through not only he good times, but the hard ones too, then you have the making of a great leader.

Another important quality of being a great leader is integrity. The possession of firm principals ensures that you will make the most responsible decisions and do what you truly think is best. Having integrity means a person is honest, trustworthy, reliable, loyal and honourable. To be a leader you must possess these certain characteristics so that you are able to lead fairly a d justly. Without integrity and a good set of core values, how can we be able to trust our leaders?

Essential quality of a good leader is perseverance. With determination and perseverance, we can know that our leader will keep focused and get us through difficult times. To be determined is one of the most important aspects of a leader so perseverance to do our best and lead the people in the right direction is crucial. Without motivation, a leader can fold under the pressures of the job and let down the people. Perseverance ensures that the job done and the people will be led properly.

Mikhail Gorbachev was indeed a prudent leader and had a long cherished dream for USSR. He wanted to show USSR, a new path of Economic Development by ending prolonged cold war with USA. He started a detailed process of negotiation with Ronald Regan, the then US president. But to his misfortune, his steps proved highly virulent for USSR & it collapsed like a pouch of cards. He despite being a popular leader has to vacate his office because he failed to deliverer what USSR needed from him. Contrary to it, Reagan was totally ignorant & inexperienced leader but



was re-elected as US president. He got the credit to bring end to cold war. It was because; he was able to deliver for US people, what they were waiting for since a long time.

In present politics of India, re-election of Shivraj Singh Chauhan in Madhay Pradesh, Narendra Modi being CM of Gujarat & then PM of India are proofs of their abilities and records to deliver things in public interest. They have established the point that if the leaders are delivering results continuously, it is the hallmark for their leadership qualities. People regard such leaders and provide them opportunities to serve them continuously. They are kept in categories of those leaders who lead by example. Last but not the least, rulers are really forms of god, sitting on throne entrust them with varied duties to be delivered in public interest. A nation is known by the wisdom of rulers, ruling it modern would is drive by forces of market & Foreign players. In this situation, if a ruler fails to deliver safety and security to its own people, he will have to face revolts. Morality, ethics, honesty must be inherent characteristics of ruler because Politics bereft of Ethics is a death trap. Since rulers are assumed to be forms of God, only those rulers should rule who can deliver, otherwise conservancy doesn't take time to occur. The ultimate guideline for the leaders is this: Perform or Perish.

FUTURE WARFARE: COMMAND, CONTROL, COMMUNICATION AND INTELLIGENCE

Effective command and control has been the hall mark of a successful military leader ever since organised conflict began. The evolution of military operations from the concentrated set piece battles of medieval days to the world wars has meant that the scope of command and control of forces has expanded tremendously. Today, armed forces have become extremely mobile and can be deployed on the other side of the globe in a matter of hours. Weapon systems are highly sophisticated with tremendous global and political significance and are increasingly available to many nations. The concept of command, control, communications and intelligence (C31 or C41 as computers are included as an integral part these days) is here to stay and India must induct these into its armed forces or else we will be left behind.

C31 systems are the most complete real-time systems known to man. They are basically action information systems, that is, they concentrate upon acquisition of information, data processing and communications. A comprehensive definition from NATO on C31 goes like this-"An integrated system comprising of doctrines, procedures, organisational structures, personnel, equipment, software and communications, which provide authorities at each level in the hierarchy with timely and adequate information to plan, direct and control the resources at their disposal to meet their defined responsibilities and terms of reference."

The requirement to have comprehensive and timely awareness of the situation as it develops, so that politicians and commanders can determine the appropriate reactions and implement them, while the situation is still current, means a powerful infrastructure of electronics and computing facilities. These include sensors, communication links, colour graphic displays, and the wherewithal to network all the elements to provide necessary data in real time for effective decision-making. It is obvious that for a full implementation of a C31 system, enormous amount of data transmission, data processing and data storage and retrieval facilities would be required at every level. Obviously the computer holds the key and is the main component for implementation or planning of a C31 system. The technological capabilities of present day weapon systems and the enormous mobility of Armed Forces has brought down the reaction time available to the decision makers so automation is the only answer. The information technology revolution that has swept across the world during this century has become a force multiplier in the battle field.

The role of communications component of C31 systems may be stated simply as the timely, accurate and secure distribution of information between widely dispersed elements of the information system. Remove the communication links, and one is left with a collection of unconnected and therefore relatively useless items of equipment. Today's C31 systems and those planned for the future represent convergence between battlefield communication systems. Recent years have seen the grown demands for computer-based information systems which has led to the development and deployment of systems specifically designed for data transmission Overall required capacity is a critical factor in the sizing of the communication network.

C31 systems can be classified into strategic and tactical level systems. There will be further sub-divisions of these into surveillance monitoring systems, management (administrative and logistics) systems, Air defence and air space management, electronic warfare, and decision support system and perhaps many more depending upon the organisational structure of the forces. Strategic level systems encompass the whole of C31 structure at the National level and in some cases like in the US, may be at a global level called worldwide Military Command and Control Information System. The deployment and use of long range weapon systems demand a National level C31 systems, since the decision for use of such weapons would invariably be taken at the National level. While strategic weapon systems are planned to be inducted there is no corresponding efforts to build such C31 systems in the present Indian scenario.

At the tactical battlefield level, a number of C31 subsystems are integrated into central combat or command information decision support system (CIDSS) which is the nerve centre for tactical operations. This also is to be suitably integrated with the Air Force and Naval Command and control systems for coordinated decision making.

One of the important tactical C31 sub-systems is the air defence control and reporting (C & R) and air space management system. While the ADC & R system covers the entire nation to provide air defence against enemy air threats, the air space management system covers the tactical battle area and ensures safety of own aircraft and ground forces from enemy air attack. These systems consist of a chain of radars and other sensors (including airborne warning and control system AWACS or Airborne Early Warning radars-AEW) networked to provide total air scenario and are further integrated with weapon sites, civil defence centres, civil air traffic control centres and with corresponding Army and Naval Air Defence systems. This is predominantly an Airforce managed system and is automated and networked using the Automatic Data Handling Systems supplied by the Electronic Corporation of India Ltd, Hyderabad.

Artillery Combat Command and Control System (ACCCS) is a tactical C31 system of the Army, which provides a computerised network from the forward observer to the



corps level, for total coordination of artillery operations and optimum utilisation of resources. This automated fire power system provides for quick response to fire support requests.

Surveillance of the battlefield to obtain information on the enemy actions, movement of troops and weapon system is an essential requirement for the conduct of battle. A range of sensors, optical/electro-optical systems, battle field surveillance radars, weapon locating radars, O and ranging systems etc, provide the necessary information. Remotely piloted Vehicles (RPV) and helicopters fitted with appropriate sensors provides long range information on the enemy activities. The information thus gathered is to be organised, networked and distributed to all levels where this information is needed. This system is called the Battlefield Surveillance System.

Another important sub-system is the electronic warfare system (EW) which provides surveillance, monitoring ad countering the enemy electromagnetic spectrum. The Armed Forces are increasingly dependent on the electronic medium for conduct of battle, be it telecommunication radar or weapon guidance systems. It has to be ensured that the enemy is denied te use of electromagnetic spectrum whereas free use of the spectrum is possible by own forces. Electronic Support Measures (ESM) act as a source to search, intercept, locate, record and process the enemy electronic emissions so that suitable Electronic Counter Measures (ECM) can be taken.

All these sub-systems are to be integrated and networked to central CIDSS which acts as the hub centre. Inputs from a sub-systems are received and processed to provide total operational information along with administrative and logistics information for effective, immediate decision making. Perhaps Al and Expert Systems may play a key role at this level in future.

Dr. Eli Brookner, the famous radar specialist from Raytheon coined a law which says "Any decision to be taken in the Armed Forces will have to be taken in two years as otherwise no decision will ever be taken. Note: the tenure of a General is two years". This is very much true in the Indian scenario. The Armed Forces are generally conservative and not given to rushing in technological and political changes taking place all around, there is a crying need to accelerate the development and induction of a fullfledged C31 system for the country. There is also a need to have a unified approach from the three services for an integrated development of the systems so that aspects like standardisation and interoperability are taken care. The C31 system in all respects is definitely a Force Multiplier and the money spent on this will go a long way in ensuring National Security.





MASTER THE NEW LEARNING MANTRA



BOOK ONLINE

www.vedhikiasacademy.org

MODEL QUESTION PAPER-MCQ





Q1. With reference to climate change, consider the following statements.

1.It is primarily driven by human activities such as the burning of fossil fuels and deforestation.

2.Natural factors such as volcanic activity and variations in solar radiation are the primary drivers of climate change.

Which of the above statement/s is/ are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Q2. Consider the following pairs.

(Biosphere reserve seen in news: Location)

- 1. Nanda Devi: Himachal Pradesh
- 2. Nokrek: Nagaland
- 3. Khangchendzonga: Sikkim
- How many of the above pair/s is/are correctly matched?
- A. One pair only
- B. Two pairs only
- C. All the three pairs
- D. None of the pairs

Q3. The Adaptation Gap Report 2023 often seen in news is released by

A. Intergovernmental Panel on Climate Change (IPCC).

B. United Nations Framework Convention on Climate Change (UNFCCC).

C. World Meteorological Organization (WMO).

D. United Nations Environment Programme (UNEP).

Q4. Consider the following statements regarding Jaguars often seen in news.

1. They are the largest carnivores and the sole big cat in Latin America, spanning 18 countries from Mexico to Argentina.

2. They are classified as 'vulnerable' on the IUCN Red List.

3. CITES lists jaguars under Appendix I, highlighting their endangered status and the need for conservation efforts.

How many of the above statement/s is/are correct?

A. Only One

- B. Only Two
- C. All the Three

D. None of the above

Q5. Which country created the world's first marine protected area for endangered sperm whales?

A. Costa Rica.

B.Dominica.

- C.Seychelles.
- D.Australia.

Q6. Consider the following statements regarding the green buildings.

Green buildings prioritize energy efficiency and

environmentally friendly practices for reduced ecological impact.

2. LEED certification recognizes green buildings meeting high standards in energy performance and indoor air quality.

3. Green buildings aim to minimize their carbon footprint through renewable energy sources and efficient waste management systems.

How many of the above statement/s is/are correct?

- A. Only One
- B. Only Two
- C. All the Three
- D. None of the above

Q7. Consider the following statements.

1. Low water levels in Karnataka's reservoirs intensify the Cauvery water-sharing dispute with Tamil Nadu.

2. National reservoir storage is 50% below normal in reservoirs, impacting various states with regional variations.

Which of the above statement/s is/ are incorrect?

A.1 only

B.2 only

C.Both 1 and 2

D.Neither 1 nor 2

Q8.Consider the following statements regarding the conservation of tigers in India.

1.India holds over 70% of the world's wild tiger population conducting assessments every four years since 2006.

2.India has twenty-three protected reserves, covering 1.5% of the country's area, a decrease from fifteen reserves in 1973.

Which of the above statement/s is/ are incorrect?

A.1 only

B.2 only

C.Both 1 and 2

D.Neither 1 nor 2

Q9. Consider the following statements regarding the Zika Virus.

1.It primarily spreads through Aedes mosquitoes increasing the risk of infection.

2.Zika during pregnancy poses risks like microcephaly and miscarriage in infants.

3.It is not linked to any neurological complications in adults and children.

How many of the above statement/s is/are correct?

A.Only One

B.Only Two

C.All the Three

D.None of the above

Q10. What is the primary source of Environmental DNA (eDNA) often seen in news?

A.Exclusive release from skin and hair shedding by

1. 108



organisms into the environment.

B.Only mitochondrial DNA released through various means like faeces and carcasses.

C.Both nuclear and mitochondrial DNA released by organisms through various biological materials.

D.DNA obtained solely from gametes released into the environment by organisms.

Q11. Consider the following statements regarding Net neutrality often seen in news.

1.It advocates for equal internet access, preventing Internet Service Providers from favouring or blocking specific content.

2.Without net neutrality, ISPs could manipulate internet speed and access, favouring certain websites or services over others.

3.It ensures a level playing field for online businesses, preventing discrimination based on size or financial capabilities.

How any of the above statement/s is/are incorrect?

A.Only One

B.Only Two

C.All the Three

D.None of the above

Q12. Which among the following statement is wrong regarding the data breach often seen in news?

A.It involves unauthorized access to sensitive information.

B.Cybersecurity measures aim to prevent data breaches by safeguarding networks and sensitive information from unauthorized access.

C.Data breaches can result in financial losses and legal consequences for individuals and organizations affected.

D.None of the above

Q13. What causes the formation of the aurora, or northern/ southern lights?

A.Earth's magnetic field repels solar particles, preventing their interaction with the atmosphere.

B.Neon gas mixtures in the atmosphere create the colourful display of the aurora lights.

C.Solar particles colliding with Earth's upper atmosphere generate the mesmerizing auroral phenomenon.

D.The Earth's magnetic field absorbs solar particles, reducing their impact on the atmosphere.

Q14. With reference to the Large Language Models often seen in news, consider the following statements.

1. They use deep learning and extensive data to comprehend and predict text-based content.

2.Transformers in LLMs learn grammar, languages, and knowledge through unsupervised training with self-attention capabilities.

3.LLMs like GPT-3 have a minimal number of parameters, hindering their ability to consider vast amounts of data for generative AI capabilities.

How many of the above statement/s is/are correct?

A.Only One

B.Only Two

C.All the Three

D.None of the above

Q15. What is a characteristic feature of Deepfakes technology?

A.They use static images to create realistic, animated videos of individuals.

B.They involve the manipulation of audio files to create synthetic voices.

C.They employ artificial intelligence to create realistic but fabricated videos of individuals.

D.They primarily rely on physical disguises and makeup to alter an individual's appearance.

Q16. In which creative field does Kozhikode represent in the UCCN?

A) Design

B) Literature

C) Gastronomy

D) Music

Q18. Consider the following statements regarding maritime India vision 2030

1)MIV 2030 is a comprehensive 10-year vision launched by the Government of India in March 2021 to transform the country into a maritime leader.

2) The MIV aims to boost waterways, give a fillip to the shipbuilding industry, and encourage cruise tourism in India.

Select the correct answer given below:

a)1 only

b)2 only

c)Both 1 and 2

d)Neither 1 nor 2

Q19.The provision for All India Judicial Service was introduced by which Constitutional amendment act?

a)42nd Amendment

b)46th Amendment

c)44th Amendment

d)40Th Amendment

Q20. Consider the following statements regarding COP28 Dubai.

1.It is officially known as 28th Conference of the Parties of the United Nations Frame work on Climate Change(UNFCC)

2.It is a meeting held in Dubai where world leaders, policy makes and stakeholders gather to discuss and negotiate on climate action.

3.One of the objectives of the meeting is to accelerate the implementation of the Paris agreement and achieve its goals of limiting climate change.

How many of the statements given above are correct?



a)Only 1 b)Only 2

c)All three

d)None of the above

Q21. Which of the following is false regarding the major features of the Bharat Sakshya Bill, 2023.

a) The Bharatiya Sakshya Bill, 2023, is a proposed legislation aimed at replacing the Indian Evidence Act, 1872.

b)It adequately addresses the issue of privileged communication between the ministers and the President.

c)It allows courts to inquire into any privileged communication between Ministers and President of India

d)It seeks change the terminology, language and references to clauses reflecting India's post colonial reality.

Q22. An all India service may be created

1.When Parliament take initiative for the same, including setting up of All India Judicial services, if the Rajya Sabha passes a declaration proclaiming it as necessary in the national Interest

2.Such a resolution needs a support of two-thirds of the members present and voting

Which of the following is / are true regarding the above

a)1 only

b)2 only

c)Both 1 and 2

d)None of the above

Q23. What is the name of the platform launched by Prime minister on the National Unity day

a)Meri awaz suno

b)Arogya Sethu

c)Mera Yuva

d)Mera Yuva Bharat

Q24. Agartala-Akhaura cross-border rail link project' connects India with which country?

a)Bangladesh

b)Nepal

c)Myanmar

d)Singapore

Q25.Which institutions released Hunger – Hotspots outlook campaihn

a)World bank and OECD

b)SAARC and SBI

c)FAO and WFP

d)None of the above

Q26. The 'AAINA Dashboard for Cities' portal has been launched by which Union Ministry?

[A] Ministry of MSME

[B] Ministry of Housing and Urban Affairs

[C] Ministry of Commerce and Industry

[D] Ministry of Electronics and IT

Q27. Innovation Handshake" agenda, is associated with which two countries?

a)Either China UK

b)India and China

c)Russia and India

d)USA and Canada

Q28. Benjamin Netanyahu is the longest-serving Prime Minister of which country?

[A] Japan

[B] Italy

[C] Isreal

d) Libiya

Q29. Which country recently ratified the country's entry into the Regional Comprehensive Economic Partnership (RCEP)?

[A] India

[B] USA

[C] Philippines

[D] Sri Lanka

Q30.Which day is celebrated as the Constitution Day

a)27th November

b)24th November

c)27th November

d)26th November

Q31. Which act was invoked by the Govt, of India to issue advisory to social media intermediaries to identify deepflakes?

a)Unlawful activities prevention act b)Digital personal data Protection Act c)Information Technology Act of 2000

d)MISA Act

Q32. Which country moved out of Treaty on Conventional Armed Forces in Europe(CFE)

a)Russia

b)Germany

c)France

d)Poland

Q33.With reference to the Indian economy, consider the following statements:

1.An increase in Nominal Effective Exchange Rate (NEER) indicates the appreciation of rupee.

2.An increase in the Real Effective Exchange Rate (REER) indicates an improvement in trade competitiveness.

3.An increasing trend in domestic inflation relative to inflation in other countries is likely to cause an increasing divergence between NEER and REER.

Which of the above statements are correct?

a.1 and 2 only



b.2 and 3 only c.1 and 3 only

d.1, 2 and 3

Q34.With reference to the "G20 Common Framework", consider the following statements:

1.It is an initiative endorsed by the G20 together with the Paris Club.

2.It is an initiative to support Low Income Countries with unsustainable debt.

Which of the statements given above is/are correct?

a.1 only

b.2 only

c.Both 1 and 2

d.Neither 1 nor 2

Q35.With reference to foreign-owned e-commerce firms operating in India, which of the following statements is/are correct?

1.Foreign-owned e-commerce firms operating in India can sell their own goods in addition to offering their platforms as market-places.

2.Foreign-owned e-commerce firms operating in India has limited powers to own big sellers on their platforms.

Select the correct answer using the code given below

a.1 only

b.2 only

c.Both 1 and 2

d.Neither 1 nor 2

Q36.Which of the following activities constitute real sector in the economy?

a.Farmers harvesting their crops

b.Textile mills converting raw cotton into fabrics

c.A commercial bank lending money to a trading company

d.A corporate body issuing Rupee Denominated Bonds overseas

Q37.Which one of the following situations best reflects "Indirect Transfers" often talked about in media recently with reference to India?

a.An Indian company investing in a foreign enterprise and paying taxes to the foreign country on the profits arising out of its investment

b.A foreign company investing in India and paying taxes to the country of its base on the profits arising out of its investment

c.An Indian company purchases tangible assets in a foreign country and sells such assets after their value increases and transfers the proceeds to India

d.A foreign company transfers shares and such shares derive their substantial value from assets located in India.

Q38.With reference to the expenditure made by an organisation or a company, which of the following statements is/are correct?

1. Acquiring new technology is capital expenditure.

2.Debt financing is considered capital expenditure, while equity financing is considered revenue expenditure.

Select the correct answer using the code given below:

a.1 only

b.2 only

c.Both 1 and 2

d.Neither 1 nor 2

Q39.With reference to the Indian economy, consider the following statements:

1.A share of the household financial savings goes towards government borrowings.

2.Dated securities issued at market-related rates in auctions form a large component of internal debt.

Which of the above statements is/are correct?

a.1 only

b.2 only

c.Both 1 and 2

d.Neither 1 nor 2

Q40.Consider the following statements:

1.Tight monetary policy of US Federal Reserve could lead to capital flight.

2.Capital flight may increase the interest cost of firms with existing External Commercial Borrowings (ECBs).

3.Devaluation of domestic currency decreases the currency risk associated with ECBS.

Which of the statements given above are correct?

a.1 and 2 only

b.2 and 3 only

c.1 and 3 only

d.1, 2 and 3.

Q41.With reference to the Convertible Bonds, consider the following statements:

1.As there is an option to exchange the bond for equity, Convertible Bonds pay a lower rate of interest.

2. The option to convert to equity affords the bondholder a degree of indexation to rising consumer prices.

Which of the statements given above is/are correct?

a.1 only b.2 only

c.Both 1 and 2

d.Neither 1 nor 2

Q42.In India, which one of the following is responsible for maintaining price stability by controlling inflation?

a.Department of Consumer Affairs

b.Expenditure Management Commission

c.Financial Stability and Development Council

d.Reserve Bank of India.

Q43.With reference to Non-Fungible Tokens (NFTs), consider the following statements:

1. They enable the digital representation of physical assets.



2. They are unique cryptographic tokens that exist on a blockchain.

3.They can be traded or exchanged at equivalency and therefore can be used as a medium transaction. of commercial

Which of the statements given above are correct?

a.1 and 2 only

b.2 and 3 only

c.1 and 3 only

d.1, 2 and 3

Q44.In India, which one of the following compiles information on industrial disputes, closures, retrenchments and lay-offs in factories employing workers?

a.Central Statistics Office

b.Department for Promotion of Industry and Internal Trade c.Labour Bureau

d.National Technical Manpower Information System

Q45.The money multiplier in an economy increases with which one of the following?

a.Increase in the Cash Reserve Ratio in the banks.

b.Increase in the Statutory Liquidity Ratio in the banks

c.Increase in the banking habit of the people

d.Increase in the population of the country

Q46.With reference to India, consider the following d.3 only statements:

1.Retail investors through Demat account can invest in Treasury Bills and Government of India Debt Bonds in the primary market

2.The "Negotiated Dealing System-Ordering Matching" is a government securities trading platform of the Reserve Bank of India.

3.The "Central Depository Services Ltd" is jointly promoted by the Reserve Bank of India and the Bombay Stock Exchange.

Which of the statements given above is/are correct?

a.1 only

b.1 and 2

c.3 only

d.2 and 3

Q47.In India, the Central Bank's function as the "lender of last resort" usually refers to which of the following?

1.Lending to trade and industry bodies when they fail to borrow from other sources

2.Providing liquidity to the banks having a temporary crisis 3.Lending to governments to finance budgetary deficits Select the correct answer using the code given below a.1 and 2 b.2 only

c.2 and 3





INDIA'S LARGEST ONLINE IAS COACHING ACADEMY



SPACE FOR ROUGH WORK



łΙΚ

OMR ANSWER SHEET

ROLL	NO.	-			_	-		1	<u>EST</u>	ID		1	lama																
								L					varne																
\odot								1 (90	\odot		E	Batch																
00									00				Abbile	No.								To di I	Data		7	1			
00									30			旧		_		_		_	_					_	_				
							$4 \bigcirc \bigcirc \bigcirc \bigcirc$ $5 \bigcirc \bigcirc \bigcirc \bigcirc$ $6 @ @ @$ $7 \bigcirc \bigcirc \bigcirc$ $8 \bigcirc \bigcirc \bigcirc$						Candidate Sign							NSTRUCTIONS FOR FILLING THE SHEE 1. This sheet should not be folded or cru shed. 2. Use onlyblue/black ball point pen to fill the circles. 3. Use of pencilis strictlyprohibited. 4. Circles should be darkened completelyand proper 5. Cutting and erasing on this sheet is not allowed. 6. Do not use anystraymarks on the sheet. 7. Do not use marker or white fluid to hid ethemark.									
$\odot \odot$	0	٥(00	00	00	0		9 (90	\odot											use ma IG M E'					dethe ECTM			
$\odot \odot$	\odot	00	00	000	00	\odot		0 (00	\odot											• Z		/			ЪС			
																_								_					
		_	_	6				2				_						_	_					_					
1			с D Э ()		21	A	B			41			C		6	1	A O		C			81				• D			
			90		22			-		42			Õ				õ									$\overline{0}$			
			90			õ					_	-	õ	-			õ	_	_	_						$\overline{\odot}$			
))			ŏ					_	_	õ				ŏ	_	_	_						$\widetilde{\odot}$			
))			ŏ				45			õ				ŏ	_	_	_						$\widetilde{\odot}$			
	<u> </u>					Ŭ	Ĭ		- -		<u> </u>		<u> </u>	Ŭ			Ĭ	Ŭ	Ĭ	Ĭ			Ŭ	Ĩ		<u> </u>			
	~	~ ~	~ ~		6.000	~	~	~	~	22335	~	~	~	~			~	_	~	~		1524	~	~	~	~			
	_	_	90			\odot	_	_	_	46	_	_	\odot				\odot	_	_	_		86	_	_		0			
			90		27	\sim	_	-	-	47	_		0	-			0		_	_		87				\odot			
			90		28	<u> </u>	_	-	-	48			0				0					88				\odot			
			9 0 9 0			0				49 50			0				() ()					89 90				00			
10	G	୬୯	90		30	٢	9	91	9	20	9	O	0	U	,	U	Q	୦	G	U		90	O	9	e	0			
11	\odot	•	୭୦)	31	\odot	۲	0	•	51	\odot	۲	\odot	•	7	1	\odot	۲	0	۲		91	\odot	۲	0) ()			
			90			\odot	_	_	_		_	_	\odot				\odot	_	_	_) 🛈			
			୭୦			\odot							\odot				\odot) ()			
			90						•					0						0						0			
15	\odot) (90		35	\odot	•	0	•	55	\odot	۲	\odot	•	7	5	\odot	•	0	0		95	۲	۲	હ	0			
16	(A)	۵(90		36	٢	•	େ	(56	(4)	(1)	\odot	•	7	6	(4)	٦	୍	•		96	(4)		(@) ()			
			90			$\check{\odot}$							õ							õ						\odot			
			90			õ							õ							õ						$\widetilde{\odot}$			
			٥õ			$\check{\odot}$							õ							ŏ						$\widetilde{\odot}$			
))					õ					õ							ŏ						$\widetilde{\odot}$			





MASTER THE NEW LEARNING MANTRA



BOOK ONLINE

www.vedhikiasacademy.org

SAMKALP VEDHIK CURRENT AFFAIRS NOVEMBER 2023



SAMKALP BHAWAN Plot no. -15, Sector -4, R K Puram, New Delhi - 110022 **VEDHIK IAS ACADEMY**

Head Office: M4 - Houz New Delhi - 16 Registered Office : Mercy Estate 4th Floor, Ravipuram, Pin - 682 015

