



GRADIENT
IAS

Current Affairs for UPSC & State PSC

NOV 2023

Gradient IAS



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

This PDF compiles monthly current affairs for UPSC / State PSC Mains

Month – Nov 2023

We have a lot more to offer. Stay connected with us for free quizzes, notes, newspaper analysis, discussions etc.

Telegram: <https://t.me/gradientUPSCAPSC>

Whatsapp: <https://chat.whatsapp.com/DEMKA2G9cpb2gfD5Wr0LhE>

Instagram: <https://www.instagram.com/gradientias>

Facebook: <https://www.facebook.com/gradientias>

Website: www.gradientias.com



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

1. Exercise SAMPRITI

WHY IN NEWS?

India and Bangladesh commenced the 11th edition of exercise SAMPRITI on 03rd October 2023 in Umroi, Meghalaya.

MAIN BODY

Centered on the conduct of Sub-Conventional Operations as per Chapter VII of the UN mandate, SAMPRITI-XI will include a Command Post Exercise (CPX) and a Field Training Exercise (FTX), culminating in a Validation Exercise.

20 Officers from each contingent will participate in the CPX, focusing on decision-making after thorough deliberations. This will be followed by FTX wherein grassroots-level operations will be validated. The FTX will include a series of joint tactical drills for counter-terrorist operations such as hostage rescue, crowd control measures, and use of helicopters in counter-terrorist operations. The Validation Exercise will be conducted on 14th and 15th October 2023 in Darranga Field Firing Range, Assam. During the course of the exercise, the participants will also get to witness the prowess of 'Atmanirbhar Bharat' Equipment Display.

SAMPRITI-XI promises to further enhance defence cooperation between India and Bangladesh, fostering deeper bilateral relations, cultural understanding, and mutual benefits from shared experiences in Sub Conventional Operations.

India-Bangladesh Defence Cooperation

India's cooperation with Bangladesh on defence and security traces back to Bangladesh's Great Liberation War in December 1971.

Implementation agreement to expedite work towards drawing upon a US\$ 500 mn Defence Line of Credit extended by India to Bangladesh has been finalized in 2019.

3

The two countries signed a defence pact in 1972.

Both countries have an MoU on the framework for defence cooperation.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

2. Cyclone 'Tej'

WHY IN NEWS?

Recently the India Meteorological Department (IMD) has predicted that Cyclone Tej, which is forming a depression in the Arabian Sea, has intensified into an extremely severe cyclonic storm near the coasts of Oman and Yemen.

With Reference to Cyclone 'Tej':

Cyclonic Storm Tej is predicted to move northwestwards and cross the Yemen-Oman coasts between Al Ghaidah (Yemen) and Salalah (Oman) on October 24.

This extremely severe cyclonic storm is expected to move at a speed of approximately 115-125 km per hour.

Cyclonic storm Tej is the name given by India.

This storm has originated in the Arabian Sea.

About Cyclone:

A cyclone is a low pressure area around which air circulates rapidly towards its center. The wind direction is anti-clockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.

Cyclones usually occur with destructive storm surge and inclement weather.

The word cyclone is derived from the Greek word cyclos which means coils of a snake. The term was coined by Henry Peddington because tropical storms originating in the Bay of Bengal and the Arabian Sea appear like coiled serpents of the sea.

Cyclone Status in Arabian Sea:

Recent years have seen a frequency of "very severe cyclonic storms" over the Arabian Sea.

An extremely severe cyclone is defined as one whose wind speed reaches 220 km per hour.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

Tropical Cyclone:

Cyclones that originate and develop in the oceans of tropical regions are called 'tropical cyclones'. These occur between 5° to 30° north and 5° to 30° south latitudes. It is noteworthy that due to minimum Coriolis force in the areas between 5° to 8° latitude on either side of the equator, these cyclones are usually absent.

Tropical cyclones are extremely destructive atmospheric storms, which originate in the oceanic region between the Tropics of Cancer and Capricorn, and then flow towards the land area.

Due to the effect of ITCZ, winds from different areas converge in the center of low air pressure and due to the effect of Coriolis force, they rise up following a circular path. As a result, tropical cyclones are formed with the help of circular isobars.

The main areas of tropical cyclones are Caribbean, China Sea, Indian Ocean and Australia.

3. Lhonak Lake

WHY IN NEWS?

Recent flash floods in north Sikkim resulted from the bursting of the South Lhonak Lake. This flood occurred due to continuous rain and rising water level in Teesta river.

Important Fact:

Glaciers are large masses of ice that form from the accumulation and compaction of snow over long periods. They flow slowly downhill under their weight and gravity, shaping the landscape and playing a crucial role in Earth's climate and hydrology by storing and releasing freshwater.

Glaciers cover ~10% of the Earth's land surface, but they are shrinking rapidly across most parts of the world, leading to cascading impacts on downstream systems.

An international team of researchers conducted a study two years ago and warned that South Lonak Lake in Sikkim could burst in the future and significantly affect the downstream area.

In the context of Glacial Lake Outburst Flood (GLOF):



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

According to NDMA (National Disaster Management Authority), glacial retreat due to climate change occurring in most parts of the Hindu Kush Himalayas has given rise to the formation of numerous new glacial lakes, which are the major cause of GLOFs.

Glacial lakes, like South Lhonak Lake, form in front of, on, or beneath melting glaciers.

As they grow, they become more dangerous, often dammed by unstable ice or sediment.

If the dam breaks, a huge amount of water flows downstream, causing floods and this is called GLOF..

These floods can be triggered by a number of factors, including changes in the volume of the glacier, changes in the water level of the lake, and earthquakes.

Reasons why South Lonak Lake is vulnerable to GLOF:

With the rising global temperatures, glaciers in Sikkim Himalayan have been melting rapidly, giving rise to many glacier lakes and expanding the already existing ones in the region.

According to the Sikkim State Disaster Management Authority (SDMA), there are currently more than 300 glacial lakes in Sikkim Himalayan, and 10 (including South Lhonak Lake) have been identified as vulnerable to outburst floods.

Lhonak has grown nearly 1.5 times and South Lhonak nearly 2.5 times their initial size in 1989.

An earthquake of magnitude 4.9 in 1991 near the parent glacier feeding the South Lhonak Lake and the recent earthquake (6.9) in 2011 may have weakened the boundaries of the lake.

4. UMEED Scheme

WHY IN NEWS?

Recently a flower nursery has been started by a Self Help Group (SHG) under UMEED Scheme in Budgam, Jammu and Kashmir.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

Regarding UMEED Scheme:

UMEED Scheme under Jammu and Kashmir Rural Livelihood Mission (JKRLM) is a centrally sponsored scheme to encourage women to become self-reliant.

The main objective of the scheme is to help the rural poor across Jammu and Kashmir.

It also encourages women to make small savings, so that their Self Help Groups (SHGs) can eventually become bankable at lower interest rates.

It helps women entrepreneurs in showcasing and marketing their products.

Jammu and Kashmir Rural Livelihood Mission (JKRLM):

JKRLM is a poverty alleviation program focused on women empowerment through self-managed and sustainable institutional platforms, financial inclusion and sustainable livelihoods, aimed at alleviating rural poverty.

This scheme focuses on promoting self-employment and organization of the rural poor. The basic idea behind this program is to organize the poor into SHG (Self Help Groups) groups and enable them to become self-employed.

The scheme provides various platforms (Self Help Groups, Village Organizations, Cluster Level Federation and Block Level Federation) to the rural women at the block level.

To reduce poverty by enabling poor households to access gainful self-employment and skilled wage employment opportunities, which will result in appreciable improvement in the livelihoods of the poor on a sustainable basis through building strong grassroots level institutions.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

5. BEKAL FORT

WHY IN NEWS?

Recently it was decided to build the first public sector caravan park in Bekal, Kerala state, India.

Description of Bekal Fort:

Bekal Fort, located in the Kasaragod district of Kerala state, India, is a beautiful historical building, which is known as a symbol of the rich heritage and maritime history of the region.

This fort was built in 1650 AD by Shivappa Nayak of Keladi, spread over an area of 40 acres. This huge fort is famous as the largest fort of Kerala.

With reference to the architecture of Bekal Fort:

Bekal Fort appears as a distinctive keyhole-shaped structure when seen from outside.

Due to the strategic location of the fort near the Arabian Sea, it appears as if it has emerged from the water.

The fort is constructed primarily of laterite stones, demonstrating the architectural expertise of its builders.

There are wide and deep ditches around this fort, which serve both defensive and aesthetic purposes. Many bastions and watchtowers have been strategically built inside this fort.

Historical Importance of Bekal Fort:

Clear information about the construction of this fort has not been received yet, but the origin of Bekal Fort is considered to be ancient.

The fort underwent significant expansion and renovation during the reign of Tipu Sultan in the late 18th century, becoming a strategic military post.

Other important points about this fort:

The defensive features of this fort include a zigzag entrance, moats and strategically made holes in the outer walls for effective defense against naval attacks.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

The fort was part of Bekal Mahodayapuram during the Perumal era and later came under the control of the Kolathiri royal family around the 12th century.

The construction of this fort was started by Hiriya Venkatappa Nayak and completed by Shivappa Nayak. It served as an important center for establishing dominance and protecting the Malabar region.

Today, Bekal Fort is a major tourist destination, attracting tourists from all over the world. Tourists can see and enjoy the historical remains of Bekal Fort amidst the picturesque views of the Arabian Sea.

Recognizing its cultural importance, the Government of Kerala declared Bekal Fort a special tourist area in 1992. Subsequently, Bekal Tourism Development Corporation was established to promote and develop this historical site.

Bekal Fort has also been featured in various films, for example the Tamil film “Bombay” (song: ‘Uyyire’) and the Malayalam film “Madhuranombarkattu” (song: ‘Dwadashiyil’).

The fort is serving as a living testament to the enduring legacy of Kerala’s maritime heritage and its cultural diversity.

6. Global Positioning System (GPS) Spoofing

WHY IN NEWS?

Recently a committee has been set up by the Directorate General of Civil Aviation (DGCA) to keep an eye on GNSS (Global Navigation Satellite System) spoofing in Indian airspace.

In the context of GPS spoofing:

Attempting to change the initial location of a GPS-enabled device is known as GPS spoofing.

GPS spoofing sends false data to the receiver to distract traffic, goods or people with false information.

GPS spoofing involves a radio transmitter focused on a target, which interferes with the actual GPS signals being transmitted.

GPS signals are often weak and are transmitted via satellites.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

A strong radio transmitter can be used to disregard a weak signal and send invalid coordinates and information to the receiver.

GPS System:

The Global Positioning System (GPS) is a space-based radio-navigation system consisting of a constellation of satellites broadcasting navigation signals and a network of ground stations and satellite control stations used for monitoring and control.

It is used to give location information as well as to keep accurate time.

Difference between GPS spoofing and GPS jamming:

GPS spoofing is not the same as jamming. In GPS jamming, GPS signals are jammed, whereas in GPS spoofing these signals are not jammed.

GPS spoofing is very different and more dangerous than GPS jamming.

Airlines and other aircraft regularly suffer from jamming problems, whereas spoofing poses no regular problems.

Compared to GPS jamming, spoofing is more difficult to detect.

Increasing cases of GPS spoofing:

Cases of GPS spoofing involving commercial and airline aircraft in Iranian airspace are increasing.

The navigation systems of about 20 passenger planes flying over Iran have been interfered with by fake GPS signals.

These signals destroyed the aircraft's built-in navigation system, resulting in the rapid loss of all navigational capabilities.

Other important points:

Without any doubt, spoofing is a serious concern that needs to be dealt with smartly and safely.

GPS spoofing requires the use of detection software, which warns users about spoofing instances and prevents their devices from responding to fake GPS data.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

In this context, there is a need to work on continuous updates and more security, which can provide more security.

7. APAAR ID – One Nation, One Student ID Initiative

WHY IN NEWS?

Recently, several state governments requested schools to seek parental consent for the creation of new student identity cards. The new ID card, known as Automated Permanent Academic Account Registry- APAAR, is part of the central government's 'One Nation, One Student ID' initiative. This initiative was launched by the Ministry of Education as part of the National Education Policy 2020.

Regarding APAAR:

Under this initiative, every student will get a lifetime APAAR ID, making it easier for learners, schools and governments to track educational progress such as literacy rates, dropout rates from pre-primary education to higher education.

This ID will be linked to Academic Bank Credit (ABC), a digital storehouse containing information on credits earned by students during their learning.

DigiLocker, a digital system where students can store their important documents and achievements, such as exam results and report cards, digitally, making them easy to access and use in the future.

With APAAR ID, students will be able to store all their certificates and credits, whether they come from formal or informal education.

Function of APAAR ID:

To sign up for an APAAR ID, students need to provide basic information like name, age, date of birth, gender, and a photograph. This information will be verified using their Aadhaar number.

When a student completes a course or achieves something, it is digitally certified and stored securely in his account by authorized institutions.

For minors, parents will have to sign a consent form, allowing the ministry to use the student's Aadhaar number for authentication with UIDAI.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

If the student changes schools, whether within the state or to another state, all his data in ABC gets transferred to his new school simply by sharing the APAAR ID, there is no need to provide physical documents or transfer certificate.

Importance of APAAR ID:

It aims to reduce fraud and duplicate educational certificates by providing a single, reliable reference for educational institutions. Only first party sources that issue certificates will be allowed to deposit credits into the system, ensuring authenticity.

Also to make education hassle free and reduce the need for students to carry physical documents.

Challenges about APAAR:

Many parents and students are apprehensive about sharing their Aadhaar details. There are concerns that personal information could potentially be leaked to outside parties, compromising their privacy.

The government, however, says that the information shared by students will be kept confidential and will not be shared with any third party except for entities engaged in educational activities.

In a diverse country like India, there are concerns about the digital divide, where access to technology and digital tools may not be equitable.

8. Angel Tax

WHY IN NEWS?

Recently, the Central Board of Direct Taxes (CBDT) has taken this step amid notices being sent to startups. Angel taxes are tax funds raised by startups if they exceed the fair market value of the company.

With Reference to Angel Tax:

The provision known as 'Angel Tax' was initially introduced in 2012 to discourage the generation and use of unaccounted wealth through investments in closely owned companies.

Angel tax is a tax paid by unlisted companies when they receive funds from angel investors through share issuance.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

Companies that perform very well operationally use their brand value to obtain funding and issue shares at prices higher than fair market value.

New proposal on Angel Tax:

This tax is related to the premium received. If an Indian unlisted company receives additional premium on sale of shares to a foreign investor, the premium is treated as “income from other sources” and is taxable.

Before this proposal in Budget 2023-24, angel tax was levied only on investments made by resident investors.

Proposed Changes in Assessment Rules of Angel Tax:

Amendment is necessary in the Finance Bill, 2023. In this, it has been proposed to amend Section 56(2) VII B of the Income Tax Act.

In this, foreign investors will be included in the tax net. When a start-up raises funds from a foreign investor, this will also be counted as income and taxable after amendment.

However, this consideration should not exceed the total consideration received from the notified entity within 90 days of the issue of shares.

There are some exceptions, such as it mentions that foreign investors will not have to pay any angel tax when investing in government-recognized (Department for Promotion of Industry and Internal Trade (DPIIT) registered) startups in India.

Who are Angel Investors?

Angel investors are high net worth individuals who invest their personal income in business start-ups or small and medium scale companies.

Angel investors are usually entrepreneurs, who may also be friends or relatives of the person starting the startup company.

Angel investors believe in the company’s founders as well as their business concept and provide the capital needed to set up the company, usually at easier terms than other lenders.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

9. CITIIS 2.0 Challenge

WHY IN NEWS?

Recently, the Union Minister of Housing & Urban Affairs and Petroleum & Natural Gas launched the CITIIS 2.0 Challenge.

CITIIS 2.0:

CITIIS 2.0 is a significant step in the direction of achieving India's commitments to combating the challenges posed by climate change. During COP26 to the United Nations Framework Convention on Climate Change (UNFCCC) held in Glasgow in November 2021, the Prime Minister, Shri Narendra Modi presented the five nectar elements (Panchamrit) of India's climate actions, including achieving the target of net zero emissions by 2070. Furthering this vision, MoHUA has also undertaken varied measures to address climate change through its ongoing missions, including the Smart Cities Mission, Swachh Bharat Mission, AMRUT and Urban Transport, among others. CITIIS 2.0 program envisages to supplement such climate initiatives of the Government of India and MoHUA through its unique model of action at all three levels of the government.

CITIIS 2.0 is the second phase of the City Investments To Innovate, Integrate and Sustain (CITIIS) program. It has been conceived by MoHUA in collaboration with the French Development Agency (AFD), KfW Development Bank, the European Union and the National Institute of Urban Affairs (NIUA) with the aim to:

Drive investments into urban climate action through competitively selected projects promoting a circular economy with focus on integrated waste management.

Foster climate-sensitive planning and action in states and cities through evidence-driven approaches.

Build institutional mechanisms, leverage partnerships and anchor capacity building for all urban local bodies in India.

CITIIS 2.0 will be funded through an external funding of INR 1,866 crore (EUR 212 million). This includes a loan of EUR 100 million each from AFD and KfW, i.e., a total loan of INR 1,760 crore (EUR 200 million), and a technical assistance grant of INR 106 crore (EUR 12 million) from EU. The program will be managed by the CITIIS Program Management Unit at NIUA.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

All 100 SPVs under the Smart Cities Mission are eligible to seek assistance under CITIIS 2.0 program. Up to 18 innovative projects promoting circular economy with a focus on integrated waste management shall be selected for assistance. The CITIIS grant amount for each project under will be limited to 80% of the total project cost, up to INR 135 Crore (90% of the total project cost, in the case of North-Eastern and Hill States). The additional funds, i.e., 20% of the total project cost will be mobilised by the selected city through own source funding by the State/ Local Governments (10% of the total project cost, in case of North-Eastern and Hill States).

Components:

Component 1: Financial and technical support for developing projects focused on building climate resilience, adaptation, and mitigation in up to 18 smart cities through a selection of competitively selected projects promoting a circular economy with a focus on integrated waste management.

Component 2: All States and UTs will be eligible for support on-demand basis.

Component 3: Interventions at all three levels; Centre, State and City to further climate governance in urban India through institutional strengthening, knowledge dissemination, partnerships, building capacity, research and development to support scale-up across all States and Cities.

10. Genetic Chimaeras

WHY IN NEWS?

In a recent landmark study, scientists reported successfully generating a live chimaera in non-human primates.

Natural Chimaeras among Humans:

It can occur when the genetic material in one cell changes and gives rise to a clonal population of cells different from all the other cells.

Fusion of two fertilised zygotes early in the embryonic stage can also lead to a condition in which two genetic makeups coexist in a single individual.

Chimerism can also result from twin or multiple pregnancies evolving into a single foetus or a twin foetus being absorbed into a singleton.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

Individuals living with two blood types have been documented. Pregnant women have been known to harbour genetic material of her foetus in the bloodstream during pregnancy.

Chimaeras in Non-human Primates:

Previously, chimaeras have been induced in laboratory settings, of rat-mouse, human-pig, and human-cow in order to 'generate' human organs.

While rat-mouse chimerics had a near-normal lifespan, human-pig chimaeras had to be terminated in three to four weeks.

Though such studies have shown promise for growing organs for transplantation, they are limited by the fact that rats, mice, pigs and cows are evolutionarily distant from humans, and will pose biological and technical challenges when being used to grow human organs.

Applications:

Human-pig chimaeras have been induced in laboratory settings in a bid to develop model systems that could 'produce' human organs of a suitable size, anatomy, and physiology.

Successful application of animal insulin and the more recent use of animal heart valves in human surgeries have saved human lives.

Induced pluripotent stem cells (iPSCs):

Induced pluripotent stem cells (iPS cells or iPSCs) are a type of pluripotent stem cell that can be generated directly from a somatic cell.

The iPSC technology was pioneered by Shinya Yamanaka and Kazutoshi Takahashi in Kyoto, Japan, who together showed in 2006 that the introduction of four specific genes, collectively known as Yamanaka factors, could convert somatic cells into pluripotent stem cells.

Shinya Yamanaka was awarded the 2012 Nobel Prize along with Sir John Gurdon for the discovery that mature cells can be reprogrammed to become pluripotent.

Natural chimaeras among humans

They occur when the genetic material in one cell changes and gives rise to a clonal population of cells different from all the other cells.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

The fusion of two fertilised zygotes early in the embryonic stage can also lead to a condition in which two genetic makeups coexist in a single individual.

11. Anticipatory Bail

WHY IN NEWS?

The Supreme Court recently held that the Sessions Court or High Court would have the power to grant interim/transit anticipatory bail when the FIR is not registered within the territory of a particular State but in a different State.

What is Bail and What are its Types?

Definition: Bail is the conditional/provisional release of a person held under legal custody (in matters which are yet to be pronounced by the Court), by undertaking a promise to appear in the Court as and when required. It signifies a security/collateral deposited before the Court for release.

Types of Bail in India:

Regular Bail: It is a direction given by the Court (any Court within the country) to release a person who is already under arrest and kept in police custody. For such Bail, a person can file an application under Section 437 and 439 of the CrPC.

Interim Bail: Bail granted for a temporary and short period by the Court till the application seeking Anticipatory Bail or Regular Bail is pending before a Court.

Anticipatory Bail or Pre-arrest Bail: It is a legal provision that allows an accused person to apply for bail before being arrested. In India, pre-arrest bail is granted under section 438 of the Code of Criminal Procedure, 1973. It is issued only by the Sessions Court and High Court.

What are the Judicial Interpretations of Pre-Arrest Bail?

The Supreme Court (SC) of India has held that the power to grant pre-arrest bail is an extraordinary power to be exercised only in exceptional cases.

Gurbaksh Singh Sibbia vs State of Punjab (1980) case: SC ruled that “Sec. 438(1) should be interpreted in the light of Article 21 (protection of life and personal liberty) of the Constitution.”



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

Granting of anticipatory Bail as a matter of right of an individual should not be limited by time.

The Court could impose appropriate restrictions on a case-by-case basis.

Salauddin Abdulsamad Shaikh vs State of Maharashtra (1995) case: SC overruled its earlier judgment and held that “granting of anticipatory Bail should be limited by time.

What are the Conditions for Granting an Anticipatory Bail in India?

The person seeking anticipatory bail should have reason to believe that they may be arrested for a non-bailable offense.

The court may also impose a monetary bond, which the person seeking anticipatory bail will have to pay if they fail to appear before the court or violate the conditions imposed.

The person seeking anticipatory bail must make themselves available for interrogation by the investigating officer as and when required.

The court may grant anticipatory bail for a limited period, and the person will have to surrender to custody once the period expires.

On What Grounds Anticipatory Bail can be Cancelled?

Sec. 437(5) & Sec. 439 of Cr PC deal with the cancellation of anticipatory Bail. They imply that a Court which has the power to grant anticipatory Bail is also empowered to cancel the Bail or recall the order related to Bail upon appropriate consideration of facts.

12. National Security Strategy

WHY IN NEWS?

India has recently begun the process of coming up with a National Security Strategy after years of deliberations and the National Security Council Secretariat (NSCS) has started collecting inputs from several central ministries and departments.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

With Reference to the National Security Council Secretariat (NSCS):

The National Security Council (NSC) of India is an executive government agency established in 1998 and tasked with advising the Prime Minister's Office on matters of national security and strategic interest.

The NSC is the apex agency handling the country's internal and external security, conventional and non-conventional defence, military affairs, counter-insurgency, space and high technology, economy, counter-terrorism and environment.

Scope of National Security Strategy:

It addresses a wide range of modern challenges and threats. This includes not only old threats but also new, modern warfare issues that have become increasingly important in today's interconnected world.

This includes not only traditional threats such as military and defence-related issues, but also non-traditional threats such as financial and economic security, food and energy security, information warfare, vulnerabilities in critical information infrastructure, supply chain disruptions and environmental challenges.

Why is there a Need for National Security Strategy in India?

National security strategy for India has been a recurring topic in military discussions. However, despite various efforts, it has yet to be formulated and implemented due to the lack of a cohesive, whole-of-government effort, and the government has deliberately not made its national security objectives public.

Given the multifaceted nature of emerging threats and increasing uncertainties in global geopolitics, there is an urgent need to develop a national security strategy in India.

The former Army Chief General has stressed the outdated nature of the current political direction for the armed forces and the need to revise it.

Experts have emphasized that significant military reforms such as theaterization of the armed forces should arise from a broader national security strategy.

Outline of the Strategy Being Prepared by India:

The exact outline of the strategy being prepared is not known.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

However, it will likely include the entire range of newer challenges and modern threats facing India, including non-traditional ones such as: financial and economic security, food and energy security, information warfare, vulnerabilities in India's critical information infrastructure, as well as those associated with supply chains and environment.

Countries with National Security Strategy:

Most developed countries with an advanced military and security infrastructure have a National Security Strategy in place, updated from time to time.

The US, the UK and Russia have published national security strategies.

China also has such a strategy in place, called the Comprehensive National Security, which is closely tied to its governance structure.

Pakistan, too, has brought out a National Security Policy 2022-2026, underlining its national security objectives and priority areas.

13. Fifth India-US 2+2 Ministerial Dialogue

WHY IN NEWS?

Recently, 5th Edition of the India-US 2+2 Ministerial Dialogue took place, where both countries highlighted progress in various areas of bilateral cooperation including defense, semiconductors, emerging technology, space, health etc.

What are 2+2 meetings?

The 2+2 meetings signify the participation of two high-level representatives, Ministers holding Foreign and Defence portfolios, from each of the two countries who aim to enhance the scope of dialogue between them.

Having such a mechanism enables the partners to better understand and appreciate each other's strategic concerns and sensitivities taking into account political factors on both sides, in order to build a stronger, more integrated strategic relationship.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

Overview of India and US Bilateral Relations

Since India's independence, ties with the United States have weathered the Cold War-era distrust and estrangement over India's nuclear program.

Relations have warmed in recent years and cooperation has strengthened across a range of economic and political areas.

Bilateral Trade: The bilateral trade between the two countries has risen by 72 percent between 2017-18 and 2022-23.

The US accounted for 18 percent of the gross FDI inflows into India during 2021-22, ranking second behind Singapore.

What are the Key Highlights of the India-US 2+2 Dialogue?

Defense Deals:

Both nations aimed to collaboratively co-develop and co-produce defence systems, fostering a deeper partnership in defence technologies.

India and the U.S. are currently negotiating deals for the purchase of MQ-9B unmanned aerial vehicles and the licensed manufacturer of General Electric's F-414 jet engine in India.

These deals align with India's goal of enhancing its defence capabilities.

The Ministers looked forward to the finalisation of a Security of Supply Arrangement (SOSA), a key priority in the Roadmap, which will further integrate the defence industrial ecosystems of both countries while strengthening supply chain resilience

Advancements in Defence Technology Cooperation:

Both sides reviewed the progress of the India-U.S. Defence Industrial Ecosystem, INDUS-X, launched in June 2023, aimed at expanding the strategic technology partnership and defence industrial cooperation.

Membership in Combined Maritime Forces:

India's decision to become a full member of the Combined Maritime Forces, a multilateral construct headquartered in Bahrain, was welcomed by the Defense Secretary of the US.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

This move signifies India's commitment to regional maritime security.

Maritime Security:

Both nations shared a focus on maritime security in the Indo-Pacific region, acknowledging the importance of safeguarding vital sea lanes and promoting stability.

Multilateral Cooperation: India and the United States cooperate closely in multilateral organizations and fora, including the United Nations, G20, Association of Southeast Asian Nations (ASEAN)-related fora, International Monetary Fund, World Bank, and World Trade Organization.

Together with Australia and Japan, the United States and India convene as the Quad, a diplomatic network, to promote a free and open Indo-Pacific.

Nuclear Cooperation: Civil Nuclear Deal was signed in 2005, under the agreement, India agrees to separate its civil and military nuclear facilities and place all its civil resources under International Atomic Energy Agency (IAEA) safeguards. In exchange, the United States agrees to work toward full civil nuclear cooperation with India.

14. El Nino Impact on Food Security: FAO

WHY IN NEWS?

The World Meteorological Organization (WMO) recently forecast that El Niño may fuel more extreme weather events such as heatwaves, wildfires and droughts.

El Niño and IOD:

An El Niño phase of the El Niño Southern Oscillation (ENSO) was intensifying, which can adversely affect the southwest monsoon.

While not all El Niño events negatively impact the monsoon due to its complexity, the dynamics between El Niño and the monsoon are evolving.

The Indian Ocean Dipole (IOD) can balance the adverse impact of the El Niño on the South West Monsoon.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

Formation of El Niño

El Niño results from a complex interplay between oceanic and atmospheric forces. The primary catalyst is the weakening of the east-to-west trade winds that typically prevail across the tropical Pacific Ocean.

This weakened wind pattern enables warm water from the western Pacific to flow back to the eastern Pacific, causing a rise in sea surface temperatures.

Impact of El Niño on Global Regions

Oceanic and Atmospheric Effects: El Niño influences ocean temperatures, currents, coastal fisheries, and local weather patterns spanning from Australia to South America and beyond. Warmer ocean surface waters lead to increased rainfall due to the ascent of warm air.

Regional Weather Patterns: South America experiences heightened rainfall, contributing to coastal floods and erosion. Conversely, Indonesia and Australia face dry conditions, resulting in reservoir depletion and reduced river flow, posing risks to water-dependent agriculture.

How are the Emerging Climate Hotspots in India Impacted by Declining Monsoon Precipitation?

Water Stress in Central India:

Certain regions in Central India are emerging as climate change hotspots with critical implications for water, food, and ecological security.

Persistent water stress and urban centers facing water shortages pose challenges.

Declining Monsoon Precipitation:

Monsoon precipitation has been declining since the 1950s, potentially due to reduced land-sea thermal gradients due to the warming of the seas.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

15. Insolvency and Bankruptcy Code

WHY IN NEWS?

The Supreme Court refused to give reprieve to personal guarantors in case of default by a company under the Insolvency and Bankruptcy Code (IBC).

Introduction: The IBC was introduced by the Central Government in 2016.

Objective:

To streamline and expedite the process of resolving insolvency, which was historically a lengthy and economically challenging procedure.

The IBC covers a wide range of insolvency-related matters and is designed to protect the interests of small investors.

Resolution Timeframe: IBC establishes a time-bound process for resolving insolvency cases. Companies are required to complete the entire insolvency exercise within 180 days.

For smaller companies, including startups with an annual turnover of Rs 1 crore, the deadline is set at 90 days, with a possible extension of 45 days.

Insolvency and Bankruptcy Code, 2016

Insolvency and Bankruptcy Code, 2016 provides a time-bound process for resolving insolvency in companies and among individuals.

Insolvency is a situation where individuals or companies are unable to repay their outstanding debt.

Bankruptcy, on the other hand, is a situation whereby a court of competent jurisdiction has declared a person or other entity insolvent, having passed appropriate orders to resolve it and protect the rights of the creditors. It is a legal declaration of one's inability to pay off debts.

The Government implemented the Insolvency and Bankruptcy Code (IBC) to consolidate all laws related to insolvency and bankruptcy and to tackle Non-Performing Assets (NPA), a problem that has been pulling the Indian economy down for years.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

16. Digital Advertisement Policy, 2023

WHY IN NEWS?

The Ministry of Information and Broadcasting approved “Digital Advertisement Policy, 2023 to enable and empower the Central Bureau of Communication to undertake campaigns in the Digital Media Space.

Digital Advertisement Policy, 2023?

Expansion to Digital Platforms:

The CBC can advertise on social media, Over-the-Top (OTT) platforms, digital audio platforms, mobile applications, and websites.

It mandates that the websites, mobile apps, OTT platforms and digital audio platforms need to be at least a year old to be eligible to apply under the scheme.

Advertisement Rates and Transparency:

Advertising rates will be linked to subscriber base and viewership numbers, determined through competitive bidding to ensure transparency and efficiency.

Rates discovered through this process will remain valid for three years.

Significance of Digital Advertisement Policy, 2023?

This policy marks a pivotal moment in CBC’s mission to disseminate information and create awareness regarding various schemes, programs, and policies of the Government of India in response to the evolving media landscape and the increased digitalization of media consumption.

The huge subscriber base in the Digital Universe, coupled with technology enabled messaging options through Digital advertisements will facilitate effective delivery of citizen centric messages in a targeted manner, resulting in cost efficiencies in public oriented campaigns.

In recent years, the way audiences consume media has witnessed a significant shift towards the digital space.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

17. Tungabhadra River

WHY IN NEWS?

A 17-year-old was recently swept away in the Tungabhadra River in Huligi village.

About Tungabhadra River

It is a major river in the south Indian peninsula.

It is a major tributary of the Krishna River.

Origin:

It is formed by the union of two rivers, Tunga and Bhadra, and hence the name.

Both the Tunga and Bhadra Rivers originate on the eastern slopes of the Western Ghats.

The two rivers merge at Koodli in the Shimoga district of Karnataka, giving birth to the Tungabhadra River.

History:

The Hindus consider this river sacred, and there is a mention of the river in Ramayana, where it is referred to as Pampa.

In historical times, the Tungabhadra River was known as the Varada River.

The river was an important source of water for the Vijayanagara Empire, which ruled over the region from the 14th to the 17th century.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

18. Governor Veto Power Over Bills

WHY IN NEWS?

The Supreme Court expressed 'serious concern' over inaction by the Governor on Bills presented for his assent.

What are the Highlights of the Judgement?

Mandatory to return the bill for reconsideration if assent withheld– Court has held that under Article 200, if the Governor withholds assent he must return the bill “as soon as possible” with a message to reconsider the proposed law. A Governor who chooses to withhold a Bill without doing anything further would be acting in contravention of the Constitution.

It said the expression “as soon as possible” conveyed a “constitutional imperative of expedition” which means cannot hold indefinitely. The court has thus clarified its position on ‘pocket veto’

Governor enjoys no veto power over Bills- After returning the Bill for reconsideration, if the State legislature passes the Bill again, with or without amendment and the Bill is presented to the Governor for assent, the Governor shall not withhold assent (Article 200).

Veto over State Bills:

The governor is empowered to reserve certain types of bills passed by the state legislature for the consideration of the President.

Then, the Governor will not have any further role in the enactment of the bill.

The President can withhold his assent to such bills not only in the first instance but also in the second instance.

Thus, the President enjoys absolute veto (and not suspensive veto) over state bills.

Further, the President can exercise pocket veto in respect of state legislation also.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

19. Odisha's Bali Yatra

WHY IN NEWS?

Recently, Prime Minister Narendra Modi spoke about the ancient trade and cultural links that India's Odisha has with Indonesia's Bali – a connection that thrives to this day for over a thousand years.

What is Bali Yatra/Bali Jatra of Odisha?

It is a unique socio – cultural event with glorious history which commemorates the past association of the people of Odisha with Bali and the glorious maritime tradition of transoceanic voyages they undertook to South East Asian Countries.

The celebration of Bali yatra on the Bank of river Mahanadi takes us back to remember our ancestral cultural heritage and maritime legacy.

Historical Significance

The origins of the festival can be traced back more than 1,000 years when maritime and cultural links between ancient Kalinga (present day Odisha) and Bali and other South and Southeast Asian regions were prevalent.

The Bay of Bengal region had several ports, and sadhavas (traders) traditionally began their voyage across the sea on this auspicious day.

Why Bali Yatra is celebrated?

Some opine, Odia Sadhabas (sea traders) were sailing off to Bali on this monsoon season for which it is named as such.

Others say, Sri Chaitanya, the great Vaishnavite Bengali Saint, first landed on the soil of Cuttack after crossing the sand-bed (Bali) of Mahanadi River on his way to Puri on this auspicious day.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

20. Sajag Offshore Patrol Vessel

WHY IN NEWS?

The Indian Coast Guard Ship (ICGS) Sajag, an Offshore Patrol Vessel, recently arrived at Port Sultan Qaboos, Muscat, Oman for a three-day visit as part of the overseas deployment of ICG ships to West Asia.

About ICGS Sajag

ICGS Sajag is part of the Indian Coast Guard fleet of OPVs, based on the West Coast of India in Porbandar, Gujarat, and operates under the operational command of Commander Coast Guard Region (North West). The ship is equipped with modern weapon systems, sensors, state-of-the-art navigation and communication systems, including an integral helicopter to support both surface and air operations. Sajag has undertaken various Coast Guard operations, including Coastal Security and IMBL / EEZ surveillance, anti-transnational crimes, and Maritime SAR and Pollution Response operations in the past.

Features:

The ship is equipped with modern weapon systems, sensors, and state-of-the-art navigation and communication systems.

It is propelled by two 9100 KW diesel engines and can attain a maximum speed of 26 knots.

It has an endurance of 6000 nm at an economical speed.

It is fitted with a 40/60 Bofors gun and two 12.7 mm guns.

It is designed to carry one twin-engine helicopter and four high-speed boats, including two inflatable boats for boarding operations, search and rescue, law enforcement, and maritime patrol.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

21. 3D Printing

WHY IN NEWS?

Researchers from IIT-Mandi have found that the extrusion-based metal additive manufacturing process stands out as the most superior and cost-effective method in comparison to other approaches in metal 3D printing.

Understanding 3D Printing

3D printing, also known as additive manufacturing, constructs three-dimensional objects layer by layer using computer-generated designs.

Unlike conventional manufacturing methods that involve material subtraction, 3D printing is additive.

Applications of 3D Printing

Manufacturing: 3D printing has revolutionized manufacturing by enabling rapid prototyping, reducing production time, and minimizing waste. Complex geometries and intricate designs that were once challenging to create are now achievable with precision.

Healthcare: In the medical field, 3D printing is used to create patient-specific implants, prosthetics, and even organs. Customized medical devices and models for surgical planning enhance patient outcomes.

Aerospace: Aerospace industries utilize 3D printing to manufacture lightweight and durable parts, reducing aircraft weight and fuel consumption. This technology also enables rapid iteration of design improvements.

Advantages of 3D Printing

Customization: 3D printing allows for individualized and customized products tailored to specific needs or preferences.

Complex Geometries: The technology can create intricate and complex geometries that would be challenging or impossible to achieve using conventional manufacturing techniques.

30

How is 3D Printing done?



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

To carry out 3D printing, a personal computer connected to a 3D printer is required. There is a need to design a 3D model of the required object on computer-aid design (CAD) software and press 'print'. The 3D printer will make the desired object.

3D printers construct the desired object by using a Layering method/Additive manufacturing Process, opposite of the subtractive manufacturing processes. It builds from the bottom up by piling on layer after layer until the object looks exactly like it was envisioned.

Types of Additive Manufacturing Processes

Powder Bed Fusion (PBF): Where a thermal source is used to selectively consolidate powdered materials.

Binder Jetting (BJT): Where liquid binder is selectively deposited to bind powdered materials.

Directed Energy Deposition (DED): Where feedstock material, either powder or wire, is melted via a focused thermal source as it is deposited.

Material Extrusion (MEX): Where material is extruded through a nozzle or orifice.

22. Global Digital Public Infrastructure

WHY IN NEWS?

Prime Minister announced the launch of two India-led initiatives: the Global Digital Public Infrastructure Repository and a Social Impact Fund.

Main body –

The G20 Digital Economy Working Group (DEWG), chaired by the Ministry of Electronics and Information Technology (MeitY), has led the advancement of the global DPI Agenda. The DEWG's rigorous negotiation efforts have culminated in the first-ever multilateral consensus on DPI.

The Digital Economy Ministers' Meeting (DEMM) unanimously endorsed three DPI deliverables, which included: a Framework for building DPI, mobilizing finances for DPI development in Low-and Middle-Income Countries (LMICs), and the creation of a Global DPI Repository (GDPIR) for the exchange of information and best practices.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

This landmark consensus was also affirmed as a part of the G20 New Delhi Leaders' Declaration (NDLD).

Aim

It is aimed at addressing the existing knowledge gap around the right practices to design, build, and deploy population scale DPI.

Important Feature

Each participant, based on whether their DPI is built on open platforms, APIs, standards, and protocols, can choose to display any information at their discretion, which can help others to develop their DPI.

What purpose does the repository serve?

The IT Ministry-developed repository serves as a “resource hub” for global DPI projects by various governments.

Current examples on the website include India's Aadhaar and DigiLocker, Singapore's National Digital Identity system, the European Union's Digital Identity Wallet, and more.

Its primary aim is to bridge the knowledge gap in the choices and methodologies required for the design, construction, deployment, and governance of DPIs.

What is India Stack?

India Stack is a set of APIs (Application programming interface) that allows governments, businesses, startups and developers to utilize a unique digital Infrastructure to solve India's hard problems towards presence-less, paperless, and cashless service delivery.

It aims to unlock the economic primitives of identity, data, and payments at population scale.

The vision of India Stack is not limited to one country; it can be applied to any nation, be it a developed one or an emerging one.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

23. NASA's Psyche Mission

WHY IN NEWS?

Recently, NASA's Psyche mission sends signals to Earth from 16 million kilometres away.

Asteroid 16 Psyche

16 Psyche is an asteroid that orbits the Sun between Mars and Jupiter.

It is believed to be composed mainly of iron and nickel, similar to the Earth's core.

Scientific Instruments

The Psyche spacecraft is equipped with a suite of scientific instruments to study the asteroid in detail.

These instruments include a Multispectral Imager, Gamma-Ray and Neutron Spectrometer, Magnetometer, and a Radio Science system.

Scientific Significance

The Psyche mission is expected to provide critical insights into the formation and evolution of our solar system.

Studying the composition and history of 16 Psyche can help refine models of planetary formation and the differentiation of planetary cores.

24. International Container Transshipment Port (ICTP)

WHY IN NEWS?

The Minister for Ports, Shipping, and Waterways (MoPSW) recently inspected the location of the planned International Container Transshipment Port (ICTP) on Galathea Bay, Great Nicobar Island.

Main body

The flagship program Sagarmala under MoPSW aims to modernize, mechanize, and enhance capacity of existing ports, making them more efficient and environment friendly. Upgrading & unlocking capacity at major & non-major ports is critical for supporting economic activities in the hinterland since ports serve



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

as a vital link between sea and land transit. In the last 9 years under Port modernization, 94 Projects worth Rs. 31,129 Cr. have been completed, resulting in capacity addition of more than 230 MTPA. In terms of engaging the private sector, 21 projects worth more than Rs. 23,000 Cr. have been successfully operationalized under PPP, since 2014, indicating the considerable progress made in leveraging public-private partnerships.

India has a significant potential to set-up mega ports and compete with global ports. There are four key intervention areas highlighted under Maritime India Vision 2030, which include capacity augmentation; developing world-class Mega Ports; development of transshipment hubs in Southern India; and infrastructure modernization. Currently, India has 5 Major Ports and 2 Non-Major Ports with greater than 100 MTPA capacities. With this, there is a significant opportunity for India to set up Mega Ports and compete with global ports. Based on detailed evaluation across key criteria for Mega Ports and emerging growth potential of clusters, 3 Mega Ports – Vadhavan-JNPT Cluster, Paradip Port, and Deendayal Port have been identified to be developed into Mega Ports with >300 M TPA capacity.

The infrastructure initiatives marked in Amrit Kaal Vision 2047 focus upon development of four port clusters with capacity of >300 MTPA and 2 port clusters with capacity >500 MTPA. In addition to creating port clusters around the existing major ports, 2 new major ports – Vadhavan and Galathea Bay port are envisaged to be developed.

Vadhavan has a natural draft of about 20 meter and is therefore well suited for accommodating larger ships. Development of this port will enable cargo container vessels of 16,000-25,000 TEUs capacity. Similarly, proposed Galathea Bay Port, due to its strategic location in proximity to the East-West world-shipping corridor, is suitable to attract both gateway and transshipped cargo.

Ports in the country would also need to have higher draft available to accommodate larger vessels. Out of five ports from eight namely DPA, Vadhavan, VoCPA, Galathea Bay and PPA to have draft in the range of 18 meters to 23 meters by 2030. Further, 3 ports NMPA, CoPA and JNPA would be drafted in the range of 20 meters to 23 meters by 2047 in order to align with global standards.

Currently, nearly 75% of India's transshipped cargo is handled at ports outside India. Colombo, Singapore and Klang handle more than 85% of this cargo with 45% of this cargo handled at Colombo Port. The strategic location of Galathea Bay is a huge advantage to EXIM trade as it lies on International shipping route. With the development of ICTP at Galathea Bay, Indian ports will be able to attract more transshipment cargo. Also, developing Galathea Bay Transshipment Port will accrue significant benefits such as forex savings, foreign direct investment, increased economic activity at other Indian Ports,



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

enhanced logistics infrastructure and thus, efficiencies, employment generation, and increased revenue share.

What is a Transshipment Port?

A transshipment hub serves as a location where cargo or containers are transferred from one ship to another for onward transportation to their ultimate destination.

Unlike a traditional port where goods are unloaded and transported to the interior of the country via rail, road, or air, a transshipment hub facilitates the direct transfer of cargo between ships, streamlining the shipping process.

Significance of Project

Geo-Strategic: The islands play a crucial role in maritime security due to their strategic positioning within the Indian Ocean Region (IOR).

Improved infrastructure and connectivity will empower India to bolster its military and naval capabilities in the region.

Economic Benefits: This initiative aims to diminish inefficiencies in Indian trade logistics, addressing the significant cost, approximately 14 percent of the GDP. Consequently, it will enhance the country's export competitiveness and open avenues for India to emerge as a major hub for container traffic trade between Asia-Africa and Asia-US/Europe.

25. Corporate Governance in India

WHY IN NEWS?

The Indian Institute of Corporate Affairs' (IICA) organized the 'Two-Day Familiarisation Programme for Independent Directors' aimed at strengthening Corporate Governance in India.

What is Corporate Governance?

Corporate governance, which refers to the system of rules, practices, and processes by which a company is directed and controlled, plays a crucial role in ensuring that businesses are run ethically and in the best interests of their stakeholders.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

One of the key responsibilities of corporate governance is to prevent corporate greed and ensure that businesses are operated in a responsible and transparent manner.

Guidelines for Corporate Governance At International Level

Cadbury Committee Report-The Financial Aspects of Corporate Governance (1992).

Greenbury Committee Report on Directors' Remuneration (1995).

Hampel Committee Report on Corporate Governance (1998).

The Combined Code, Principles of Good Governance and Code of Best Practice, London Stock Exchange (1998).

CaIPERS' Global Principles of Accountable Corporate Governance (1999).

Blue Ribbon Report (1999).

King Committee On Corporate Governance (2002).

Corporate Governance Initiatives in India

In India, corporate governance initiatives have been undertaken by the Ministry of Corporate Affairs (MCA) and the Securities and Exchange Board of India (SEBI).

The first formal regulatory framework for listed companies specifically for corporate governance was established by the SEBI in February 2000, following the recommendations of Kumarmangalam Birla Committee Report. It was enshrined as Clause 49 of the Listing Agreement.

Further, SEBI is maintaining the standards of corporate governance through other laws like the Securities Contracts (Regulation) Act, 1956; Securities and Exchange Board of India Act, 1992; and Depositories Act,

Importance of Corporate Governance

The term is highlighted whenever there are corporate frauds. Corporate Governance and Code of corporate governance calls for ethical and accountable corporate administration. The best practices of corporate governance are important not only for public or shareholders but also for the very existence of the company itself. Adopting corporate governance will increase the value, sustainability and long-term profits.



TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

26. Rat-hole Mining

WHY IN NEWS?

Rat-hole mining has begun to rescue the trapped workers in Uttarkashi tunnel.

what is Rat-Hole Mining?

Rat hole mining is a method of extracting coal from narrow, horizontal seams, prevalent in Meghalaya.

The term “rat hole” refers to the narrow pits dug into the ground, typically just large enough for one person to descend and extract coal.

Once the pits are dug, miners descend using ropes or bamboo ladders to reach the coal seams. The coal is then manually extracted using primitive tools such as pickaxes, shovels, and baskets.

Types:

Side-Cutting Procedure: In the side-cutting procedure, narrow tunnels are dug on the hill slopes and workers go inside until they find the coal seam.

The coal seam in the hills of Meghalaya is very thin, less than 2 m in most cases.

Box-Cutting: In Box-cutting, a rectangular opening is made, varying from 10 to 100 sqm, and through that a vertical pit is dug, 100 to 400 feet deep.

Concerns of Rat hole mining

Safety Concerns: Rat hole mining is often carried out in very small and unstable tunnels, lacking safety measures such as proper ventilation, structural support, or safety gear for the workers.

In 2018, around 15 rat hole miners died inside a coal mine in the East Jaintia Hills district in Meghalaya.

Environmental issues: The mining process can cause land degradation, deforestation, and water pollution.

Rat-hole mining in Meghalaya had caused the water in the Kopili river (it flows through Meghalaya and Assam) to turn acidic.

Loss of lives: This method of mining has faced severe criticism due to its hazardous working conditions, and numerous accidents leading to injuries and fatalities.





TELEGRAM GROUP : <https://t.me/gradientUPSCAPSC>

Reasons for the persistence of rat hole mining

Lack of Alternative Livelihood: In some areas, there are limited alternative employment opportunities. Hence it is difficult for miners to transition to other professions.

Lack of political will: For many regions rat hole mining is the main source of revenue. Thus authorities do not take strict action to regulate the practice.

Poverty: Economic challenges and poverty drives individuals to engage in rat hole mining as a means of survival.

Gradient IAS