

INTERNATIONAL RELATION**India-China Military Talks**

Recently, the 14th round of Corps Commander level talks concluded between India and China. The meeting resulted in no breakthrough for disengagement from Hot Springs and Gogra Post, but the two sides have agreed to meet again soon. The meeting had a positive outcome in comparison to the last meeting, whereby no joint statement was released and the two sides had issued independent statements blaming each other for the situation.

Key Points**Location of Hot Springs and Gogra Post:**

- Hot Springs is just north of the Chang Chenmo river and Gogra Post is east of the point where the river takes a hairpin bend coming southeast from Galwan Valley and turning southwest.
- The area is north of the Karakoram Range of mountains, which lies north of the Pangong Tso lake, and south east of Galwan Valley.

Importance of Hot Springs and Gogra Post :

- The area lies close to Kongka Pass, one of the main passes, which, according to China, marks the boundary between India and China.
- India's claim of the international boundary lies significantly east, as it includes the entire Aksai Chin area as well.
- Hot Springs and Gogra Post are close to the boundary between two of the most historically disturbed provinces (Xinjiang and Tibet) of China.

Pangong Tso lake

- Pangong Lake is located in the Union Territory of Ladakh.
- It is situated at a height of almost 4,350m and is the world's highest saltwater lake.
- Extending to almost 160km, one-third of the Pangong Lake lies in India and the other two-thirds in China.

Galwan Valley

- The valley refers to the land that sits between steep mountains that buffet the Galwan River.
- The river has its source in Aksai Chin, on China's side of the Line of Actual Control (LAC), and it flows from the east to Ladakh, where it meets the Shyok river on India's side of the LAC.
- The valley is strategically located between Ladakh in the west and Aksai Chin in the east, which is currently controlled by China as part of its Xinjiang Uyghur Autonomous Region.

Chang Chenmo River

- Chang Chenmo River or Changchenmo River is a tributary of the Shyok River, part of the Indus River system.
- It is at the southern edge of the disputed Aksai Chin region and north of the Pangong Lake basin.
- The source of Chang Chenmo is near the Lanak Pass.

Kongka Pass

- The Kongka Pass or Kongka La is a low mountain pass over a hill that intrudes into the Chang Chenmo Valley. It is in the disputed India-China border area in Ladakh.

Karakoram Range

- It is also known as Krishnagiri which is situated in the northernmost range of the Trans-Himalayan ranges. It forms India's frontiers with Afghanistan and China.
- It extends eastwards from the Pamir for about 800 km. It is a range with lofty peaks (elevation 5,500 m and above).
- Some of the peaks are more than 8,000 metre above sea level. K2 (8,611 m)[Godwin Austen or Qogir] is the second highest peak in the world and the highest peak in the Indian Union.
- The Ladakh Plateau lies to the north-east of the Karakoram Range.

GEOGRAPHY**Meteorite (ALH) 84001**

Recently, a new study published in the journal Science, offers an explanation for the existence of organic compounds on the surface of Meteorite called (ALH) 84001. It landed on Earth from Mars in 1984, and can possibly unravel the existence of life on Mars (Red Planet).

Key Points**About:**

- Meteorite named Alan Hills (ALH) 84001 was found in December, 1984 in the Far Western Icefield of Allan Hills in Antarctica by a US meteorite hunting expedition. At the time of its discovery it was recognised as the most unusual rock collected. It was described at the time of

discovery as, shaped like a rounded brick or a large potato, about 6 inches long by 4 inches by 3 inches, and was partly covered with black glass.

- In 2021, NASA's Perseverance rover collected the first sample of Martian rock.
- It can be said with certainty that the meteorite did come from the Red planet because of the presence of traces of certain gases that are just like the Martian atmosphere.

Study:

- The study posits that the organic compounds found in the meteorite were a result of the interactions between water and rocks that occurred on Mars. These interactions were similar to those that happen on Earth.
- These kinds of non-biological, geological reactions are responsible for a pool of organic carbon compounds from which life could have evolved and presents a basis that must be taken into consideration when searching for evidence of past life on Mars.
- The search for life on Mars is not just an attempt to answer the question 'are we alone, but also It relates to early Earth environments and addresses the question of 'where did we come from.

Significance of Studying meteorites:

- Scientists are interested in studying meteorites as examining them offers clues about the beginning of the solar system and maybe even the Earth.
 1. Space agencies have launched specific missions to asteroids to be able to study them.
 2. One such example is NASA's OSIRIS-REx mission launched in 2018 with the aim of reaching asteroid Bennu and getting back a sample from the ancient asteroid.

Difference between Meteor, Meteorite and Meteoroid

- The difference between a meteor, meteorite and meteoroid is nothing but where the object is.
- Meteoroids are objects in space that range in size from dust grains to small asteroids. "Think of them as "space rocks,".
- But when meteoroids enter the Earth's atmosphere they are called meteors.
- But if a meteoroid enters the Earth's atmosphere and hits the ground, it is called a meteorite.

SCIENCE & TECHNOLOGY

Millimetre Wave band in 5G

Recently, Satcom Industry Association-India (SIA) has voiced concerns over the Government's plan to include the Millimetre Wave (mm Wave) bands in the 5G spectrum auction. SIA is an industry body that represents the interests of the communication satellite ecosystem in India.

Telecom Regulatory Authority of India (TRAI) had sought industries' views on topics related to quantum of spectrum to be auctioned off.

Key Points

5G Technology:

• **About:**

1. 5G is the 5th generation mobile network. It is a new global wireless standard after 1G, 2G, 3G, and 4G networks. The 5G networks will operate in the mm Wave spectrum.
 2. It enables a new kind of network that is designed to connect virtually everyone and everything together including machines, objects, and devices.
- **Bands in 5G:** 5G mainly work in 3 bands, namely low, mid and high frequency spectrum — all of which have their own uses as well as limitations.
 1. **Low band spectrum:** It has shown great promise in terms of coverage and speed of internet and data exchange however the maximum speed is limited to 100 Mbps (Megabits per second).
 2. **Mid-band spectrum:** It offers higher speeds compared to the low band, but has limitations in terms of coverage area and penetration of signals.
 3. **High-band spectrum:** It has the highest speed of all the three bands, but has extremely limited coverage and signal penetration strength. Internet speeds in the high-band spectrum of 5G has been tested to be as high as 20 Gbps (gigabits per second), while, in most cases, the maximum internet data speed in 4G has been recorded at 1 Gbps.

Millimetre Wave-Band:

- **About:**
 1. It is a particular segment of the radio frequency spectrum that ranges between 24 GHz and 100 GHz.
 2. This spectrum, as the name suggests, has a short wavelength, and is appropriate to deliver greater speeds and lower latencies. This in turn makes data transfer efficient and seamless as the current available networks work optimally only on lower frequency bandwidths.
- **Significance:**

1. 5G services can be deployed using lower frequency bands. They can cover greater distances and are proven to work efficiently even in urban environments, which are prone to interference.
2. But, when it comes to data speeds, these bands fail to hit peak potential needed for a true 5G experience. So, mmWave is that quintessential piece in the 5G jigsaw puzzle for mobile service providers.

Effect on Satellite Industry:

1. The Internet has largely been provided to users via fibre-optic based broadband connectivity or mobile network. Of late, another class of Internet vendors is showing up. These are satellite-based communication service providers.
2. This segment uses Low-Earth Orbit (LEO) satellites to provide broadband to both urban and rural users. Their service could also be used for weather predictions.
3. The mm- band had been the subject of controversy due to out-of-band emissions into the passive satellite band used for weather satellites at 23.6-24 GHz.
 - ✓ Out-of-band emission is emission on a frequency or frequencies immediately outside the necessary bandwidth which results from the modulation process.
 - ✓ The level of out-of-band emission can not be reduced without affecting the corresponding transmission of information.

Concerns Raised by the Industry:

- **Against ITU Norms:**
 1. SIA urged the regulator to limit the inclusion of mmWave spectrum in the 5G auction as 27.5-31 GHz and 17.7-21.2 GHz bands have been preserved for satellite-based broadband services as per the decision taken by the International Telecommunication Union (ITU).
 2. The industry body pointed to Europe’s “5G Roadmap”, which is built on the ITU’s decision to hold these bands for satellite-based broadband services.
- **Denial of Benefits:** It also noted that offering excessive spectrum resources in the upcoming 5G auction will result in Indian citizens being denied the benefits of high-demand, advanced satellite broadband services.

Loss to Economy: It will result in a massive loss to the Indian economy of up to USD 184.6 billion by 2030, along with the loss of Foreign Direct Investment (FDI) and employment generation benefits.

SIA’s Suggestions:

- SIA-India has noted that the 330 MHz of spectrum in the 3.3-3.67 GHz band is enough to satisfy India’s mid-band 5G needs while ensuring a competitive auction.
- The industry body also noted that providing excess spectrum could pose a downside risk of the bands going unsold, or even worse, underutilised by terrestrial players at the expense of satellite-based service providers. The allocation of mmWave band is critical to the satellite communication industry, which needs a stronger regulatory support to ensure that 5G operations don’t interfere with their existing operations.

PRELIMS FACT

Nari Shakti Puraskar 2021

Nominations for the Nari Shakti Puraskar, 2021 are open till 31st January, 2022.

Key points

About:

- Initiated in the year 1999, it is the highest Civilian Honour for Women in India.
- The President of India confers the Nari Shakti Puraskar on the International Women's Day (8th March), annually.
- The Nari Shakti Puraskar carries a cash award of Rs.2 Lakh and a certificate for individuals and institutions.
- The Ministry of Women and Child Development announces these national level awards for individuals/ groups/ Non-governmental Organisations (NGOs)/ institutions etc. The awards are given:
 1. For encouraging women to participate in decision making roles.
 2. Women’s skill development in traditional and non-traditional sectors.
 3. Facilitating basic amenities for rural women.
 4. Promoting women in non-traditional sectors like science and technology, sports, art, culture concretely.
 5. For the significant work towards safety and security, health and wellness, education, life skills, respect and dignity of women etc.

Objectives:

- To showcase the Government’s commitment towards women with the aim of strengthening their position in the society.

- It will also provide an opportunity to Young Indians to understand the contribution of women in building society and the nation.
 1. It will also help in achieving the 2030 Sustainable Development Goals (SDGs).
 2. SDG 5: Achieve gender equality and empower all women and girls.

Eligibility:

- As per the Guidelines, any individual of at least 25 years of age and institutions having worked in the relevant field for at least 5 years are eligible to apply.

International Women's Day

1. International Women's Day (March 8) is a global day celebrating the social, economic, cultural and political achievements of women. The day also marks a call to action for accelerating gender parity.
2. Women's Day was first celebrated back in 1911 by Clara Zetkin, who was a German. The roots of the celebration had been in the labour movement.
3. It was only in 1913, however, that the celebrations were shifted to 8th March, and it has remained that way ever since.
4. International Women's Day was celebrated for the first time by the United Nations in 1975.
5. In December 1977, the General Assembly adopted a resolution proclaiming a United Nations Day for Women's Rights and International Peace to be observed on any day of the year by Member States, in accordance with their historical and national traditions.

2. Indian Army Day

Army Day is celebrated every year on 15th January in India to commemorate the jawans and the Indian Army. This year India is celebrating its 74th Army Day.

Key Points

Historical Background:

- On 15th January 1949, Field Marshal Kodandera M. Cariappa, who was then a Lieutenant General, took over as the first Indian Commander-in-Chief of the Indian Army from General Sir Francis Butcher, the last British person to hold that post.
- K. M. Cariappa adopted the slogan 'Jai Hind' which means 'Victory of India'. He is also one of only two Indian Army officers to hold the Five-star rank of Field Marshal, the other being Field Marshal Sam Manekshaw.

Army Day:

- Army Day is celebrated every year to honor the soldiers of the country, who have set the greatest example of selfless service and brotherhood and more than anything the love for the country.
- In the celebration of Army Day, the parade is organised every year at the Cariappa Parade Ground of Delhi Cantonment.

Indian Army:

- The Indian army originated from the forces of the East India Company, which later became the 'British Indian Army', and eventually, after Independence, the Indian Army.
- The Indian Army was founded almost 126 years ago by the British on 1st April, 1895.
- India's army is considered the world's fourth strongest army.

DAILY ANSWER WRITING PRACTICE

Qns. Is death penalty a sufficient deterrent to stop heinous crimes such against women such as rape and gang rape? Critically examine. (250 words)

Ans:

Introduction

The Declaration on the Elimination of Violence against Women defines “violence against women” as “any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private life.”

The Maharashtra Assembly passed the Shakti Criminal Laws (Maharashtra Amendment) Act unanimously. With the passage of the Bill, it became the second state in India after Andhra Pradesh to approve death penalty for heinous offences of rape and gangrape.

Body

Violence against women:

- The National Family Health Survey (NFHS-4) suggests that 30 percent women in India in the age group of 15-49 have experienced physical violence since the age of 15.
- The report further reveals that 6 percent women in the same age group have experienced sexual violence at least once in their lifetime.
- About 31 percent of married women have experienced physical, sexual or emotional violence by their spouses.

- India's average rate of reported rape cases is about 6.3 per 100,000 of the population. However, this differs in places like Sikkim and Delhi, which have rates of 30.3 and 22.5, respectively, while Tamil Nadu has a rate of less than one.

Rationale behind death penalty

- The punishment is not arbitrary because, it comes out of a judicial process. To call it arbitrary, one has to necessarily prove the process as flawed.
- It is being implemented in the "rarest of the rare" cases and the fact is during the last 13 years, only four people have been executed.
- The hanging of Ajmal Kasab and Yakub Memon strongly affirms India's commitment to the protection of life.
- People criticise it on arbitrariness, irreversibility and human rights and these are not valid arguments.
- Its constitutionality is upheld, even in liberal democracies like U.S. It is not reflection of uncivilised society.
- India's neighbourhood is not peaceful, unlike Scandinavia. It is not in a group of countries, like European Union.
- India has got troubled borders. Several forces are trying to destabilise the very idea of our Nation from across the Border.
- The sacredness of life can only be seen to be protected, if those who take it away are proportionately punished.

Efficiency of death penalty

- A study by the Centre of Death Penalty – at the National Law University Delhi (NLUD) — in 2015 analyzed data of 15 years to conclude that less than 5 per cent death penalties awarded by trial courts were confirmed by the time the cases passed the tests in high courts and the Supreme Court.
- Another NLU Delhi study found that 162 death sentences were awarded across the country in 2018. Only 23 were confirmed by the high courts.
- The Supreme Court heard 12 death penalty cases in 2018 but confirmed death penalty in only one case – of Nirbhaya gangrape and murder.
- The Justice JS Verma committee, appointed after the Nirbhaya case, too had examined the efficiency of death penalty for rape. In its report, Justice Verma did not prescribe death penalty for rape for the lack of correlation in preventing the crime of rape or gangrape.

Death Penalty is not the panacea

- It unfairly targets poor and marginalised, that means, those without money & power.
- Executions occurred in around five cases for every 1 lakh murders and it looks quite arbitrary. It depends on judges personal beliefs.
- India's murder rate has declined continuously since 1991 and at present the lowest, except for 1963.
- Punishment should not imitate crime.
- As per the recent Death Penalty India Report by the National Law University, Delhi, the structural flaws in our criminal procedure and criminal justice system are most pronounced in death penalty cases.
- Most of the civilised world abolished it. Death penalty has not deterred terrorism, murder or even theft.
- From 200-2015, Supreme Court imposed 60 death sentences and subsequently admitted that it had erred in 15 of them. So, it clearly admitted that it has arbitrarily imposed the most extreme punishment.
- The Police is not known for its probity or efficiency in our Country.
- Delays in the Criminal Justice System disproportionately affects those, who suffer the tyranny of the uncertainty of their life.

Measures needed

- Law Commission in its 262nd report submitted recently recommended the abolition of capital punishment for all crimes in India, except the crime of waging war against the nation or for terrorism-related offences.
- It cited several factors to justify abolishing the death penalty, including its abolition by 140 other nations, its arbitrary and flawed application and its lack of any proven deterring effect on criminals.

Way forward

- Addressing the deeply entrenched patriarchal attitudes of the police, lawyer and other judicial officers that continues to contribute to low reporting and conviction rates.

- Bridging the gap between GBV laws and its correlated areas such as legal rights to property, land, inheritance, employment and income that allows a woman to walk out of an abusive relationship and specific emphasis on political and economic participation of women.
- Systematic intervention for multisectoral linkages between Health sector (medical and psychosocial support), Social Welfare sector (Shelters, counselling and economic support/skill), Legal (legal aid)
- Not just engage with “men and boys” as change agents but also acknowledge the expectations linked to masculinity, their position as victim of violence especially for young boys to address the perpetuation of cycle of GBV.
- Recognize sexual and reproductive health and rights by promotion and protection of women’s right to have control and decide freely over matters related to their sexuality, including sexual and reproductive health, family-planning choices and access to comprehensive sexuality education.
- Reclaiming the spaces for women to increase their presence in visibility through political and economic participation and diversifying their engagement in nontraditional sectors.
- Use of technology and emerging concepts such as Smart City in urban policy for ensuring safer and gender friendly infrastructures and spaces that prevents GBV.

DAILY QUIZ

Q1. In the Kesavananda Bharati case, which of the following elements were declared as the ‘Basic Structure’ by the Supreme Court.

1. Supremacy of the Constitution
2. Federal character of the constitution
3. Rule of law

Select the correct answer using the code below:

- a. **1 and 2 only**
- b. 2 and 3 only
- c. 1 and 3 only
- d. 1, 2 and 3

Q2. Consider the following statements about the Production-Linked Incentive (PLI) scheme for the textiles sector:

1. It aims to promote the production of high value Man-Made Fibre (MMF) fabrics, garments and technical textiles.
2. Under PLI, the Centre will subsidize eligible manufacturers by paying incentives on incremental production.

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

Q3. Subhash Chandra Garg Committee was in news recently, was constituted to deal with matters related:

- a. **cryptocurrencies**
- b. spy satellite
- c. privatization of banking sector
- d. fin-tech companies

Q4. Subhash Chandra Garg Committee was in news recently, was constituted to deal with matters related:

- a. **cryptocurrencies**
- b. spy satellite
- c. privatization of banking sector
- d. fin-tech companies

Q5. Consider the following statements about the Dudhwa Tiger Reserve:

1. It is protected area in Uttar Pradesh.
2. It is part of the Nanda Devi Biosphere Reserve.
3. It was established as a tiger reserve under Project Tiger in 1973.

Which of the statements given above is/are correct?

- a. **1 only**
- b. 1 and 2 only
- c. 2 and 3 only
- d. 1, 2 and 3