



DAILY CURRENT AFFAIRS 09-03-2024

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Surge in Demand of Copper

Syllabus: GS-1; Mineral & Energy Resources

Context

- *China Jan-Feb copper imports rise 2.6% as year-on-year demand improves*

About

- *Copper is a chemical element with the **symbol Cu** and atomic number 29.*
- *It's a reddish-brown metal that's malleable, ductile, and a good conductor of heat and electricity.*

Properties

- **Electrical conductivity**
 - *Copper is a good conductor of electricity and heat, making it ideal for electrical wiring and other applications that require efficient electricity conduction. Copper is used in 95% of transformers, electrical wire cores, and other conductors.*
- **Corrosion resistance**
 - *Copper is highly resistant to corrosion.*
- **Antimicrobial properties**
 - *Copper has natural antimicrobial properties that can help prevent the growth of bacteria and other microorganisms.*
- **Other properties**
 - *Copper is malleable, ductile, non-magnetic, has a reddish-brown color, and low chemical reactivity. Copper is also widely used in fabrication due to its exceptional ability for machining.*

Copper ores

Name	Formula	wt % Cu
Malachite	$\text{CuCO}_3 \cdot \text{Cu(OH)}_2$	57.3
Azurite	$2\text{CuCO}_3 \cdot \text{Cu(OH)}_2$	55.1
Cuprite	Cu_2O	88.8
Chrysocolla	$\text{CuO} \cdot \text{SiO}_2 \cdot 2\text{H}_2\text{O}$	37.9

<i>Chalcocite</i>	<i>Cu₂S</i>	<i>79.8</i>
<i>Covellite</i>	<i>CuS</i>	<i>66.5</i>
<i>Bornite</i>	<i>2Cu₂S·CuS·FeS</i>	<i>63.3</i>
<i>Chalcopyrite</i>	<i>CuFeS₂</i>	<i>34.5</i>
<i>The better known copper minerals</i>		

Uses

- **Electrical industry:** *Copper is used in wire.*
- **Coins:** *Copper resists corrosion from air, moisture, and seawater and has traditionally been used to make coins.*
- **Bronze:** *Copper can be hardened with tin to form the alloy bronze, which has been used to make cutlery, coins, and tools.*
- **Water purification:** *Copper is used as an algacide in water purification.*
- **Agricultural poison:** *Copper is used as an agricultural poison.*
- **Health:** *Copper is found throughout the body and helps your body make red blood cells, keep nerve cells and your immune system healthy, and form collagen.*
- *Copper can be recycled without any loss in properties.*

Production

- *India's copper production is about **2% of the world's production.***
- *India's copper is mostly produced by Madhya Pradesh, which accounts for 53% of the country's copper production. Rajasthan accounts for 43% and Jharkhand accounts for 4%.*

The five largest copper mines in India are:

- **Malanjkhand Mine**, *a surface and underground mine in Madhya Pradesh*
- **Khetri Mine**, *owned by Hindustan Copper and located in Rajasthan*
- **Kolihan Mine**, *located in Rajasthan*
- **Surda Mine**
- **Banwas Mine**

Consumer Protection Act, 2019

Syllabus: GS-2; Government policies and Interventions

Context:

- *Consumer authority warns celebrities, influencers to refrain from promoting betting, gambling.*

Consumer Protection Act, 2019:

Objective:

- *Protect consumer interests*
- *Establish mechanisms for resolving consumer disputes*
- *Address unfair trade practices, misleading advertisements, and product safety concerns*

Key Features:

- **Wider definition of "consumer":** *Includes individuals buying goods and availing services online and offline, through electronic modes, teleshopping, direct selling, or multi-level marketing.*

Establishment of Central Consumer Protection Authority (CCPA): Empowered to:

- *Investigate consumer rights violations and unfair trade practices.*
- *Order recall of unsafe goods and services.*
- *Prohibit unfair trade practices and misleading advertisements.*
- *Impose penalties on violators.*
- *File class-action suits on behalf of consumers.*

Consumer Rights:

- **Right to be informed:** *About quality, quantity, purity, potency, price, and other relevant details of goods and services.*
- **Right to choose:** *To select from a variety of goods and services at competitive prices.*
- **Right to be heard:** *To be heard and have complaints addressed effectively.*
- **Right to redressal:** *To seek compensation for defective goods, deficient services, or unfair trade practices.*
- **Right to consumer education:** *To be educated about consumer rights and responsibilities.*

Unfair Trade Practices: The Act prohibits various unfair practices, including:

- *Offering misleading information about goods or services.*
- *False or misleading advertisements.*

- *Denial of guaranteed services.*
- *Unfair contract terms.*
- *Excess charges and hidden costs.*
- *Sale of hazardous goods.*

Consumer Protection (E-commerce) Rules, 2020:

- *E-commerce platforms **must furnish comprehensive information** to consumers regarding return policies, refunds, exchanges, warranties, delivery methods, payment modes, grievance redressal mechanisms, security measures for payments, charge-back options, and country of origin.*
- *This **disclosure is crucial for empowering consumers** to make well-informed decisions before making a purchase.*
- *E-commerce platforms are **obligated to acknowledge receipt of any consumer complaint within 48 hours** and resolve it within one month from the date of receipt. Additionally, they must designate a grievance officer for handling consumer complaints.*
- *It's important to note that the **Consumer Protection (E-commerce) Rules, 2020** are mandatory regulations, not mere recommendations.*
- ***Sellers are prohibited from refusing to accept returns, withdraw services, or deny refunds** for defective, deficient, late-delivered goods, or those not meeting the description provided on the platform.*
- *The rules also **explicitly forbid e-commerce companies** from engaging in price manipulation to unfairly profit from unjustified price increases.*

Product Liability:

- *Manufacturers, product service providers, or product sellers are liable for compensating any injury or damage resulting from defective products or deficient services.*

Basis for product liability action:

- *Manufacturing defect.*
- *Design defect.*
- *Deviation from manufacturing specifications.*
- *Non-conformity to express warranty.*
- *Failure to provide adequate instructions for correct usage.*
- *Provision of faulty, imperfect, or deficient services.*

Punishment for Manufacture or Sale of Adulterated/Spurious Goods:

- *Upon first conviction, a competent court may suspend any license issued to the individual for up to two years.*
- *For a second or subsequent conviction, the court may permanently cancel the license.*

Alternate Dispute Resolution Mechanism of Mediation:

- **Consumer Commissions** will refer complaints for mediation if early settlement is feasible and agreed upon by both parties.
- **Mediation sessions** will be conducted in Mediation Cells established under the Consumer Commissions' oversight.
- Settlements reached through mediation are final, with no option for appeal.

Simplification of the Consumer Dispute Adjudication Process:

- **State and District Commissions** are empowered to review their own orders.
- Consumers can electronically file complaints with the Consumer Commissions having jurisdiction over their place of residence.
- **Video-conferencing** may be used for hearings, and complaints are deemed admissible if the question of admissibility remains unresolved within 21 days.

Other Rules and Regulations:

- Consumer Disputes Redressal Commission Rules waive filing fees for cases up to Rs. 5 lakh.
- Amounts owed to unidentifiable consumers will be credited to the Consumer Welfare Fund (CWF).
- State Commissions will provide quarterly updates to the Central Government regarding vacancies, case disposals, pendency, and other relevant matters.
- Additionally, the Central Consumer Protection Council (CCPC) Rules establish the Central Consumer Protection Council (CCPC), an advisory body on consumer issues.
- The CCPC will be chaired by the Union Minister of Consumer Affairs, Food, and Public Distribution, with the Minister of State serving as Vice Chairperson and 34 other members from various sectors.
- It will serve a three-year term and include Ministers-in-charge of consumer affairs from two states in each region: North, South, East, West, and the North-East Region.

Comparison of Consumer Protection Act 1986 and 2019

Feature	Consumer Protection Act, 1986	Consumer Protection Act, 2019
Year enacted	<i>1986</i>	<i>2019</i>
Objective	<i>To provide better protection for consumers</i>	<i>To further strengthen existing consumer protection and adapt to the changing market</i>
Definition of "consumer"	<i>Excluded those availing goods or services for commercial purposes</i>	<i>Includes those availing goods or services online or through electronic means</i>
Consumer Rights	<i>Six rights: right to safety, information, choice, representation, redressal, and consumer education</i>	<i>Eight rights: same as 1986 Act, plus right to fair, transparent and reasonable conditions of service</i>
Dispute redressal mechanism	<i>Three-tier system: District Commissions, State Commissions, and National Commission</i>	<i>Retains the three-tier system but introduces mediation as an option for faster resolution</i>
Penalties	<i>Imprisonment and/or fine for unfair trade practices</i>	<i>Enhanced penalties, including imprisonment and/or fine</i>
Focus	<i>Primarily on offline transactions</i>	<i>Covers both offline and online transactions, with specific regulations for e-commerce</i>

Practice Question

Q. Critically examine the key changes introduced by the Consumer Protection Act, 2019, compared to the 1986 Act. How do these changes address the evolving challenges faced by consumers in the digital age? Discuss the limitations, if any, of the 2019 Act and suggest measures for further strengthening consumer protection in India. (15 marks, 250 words)

BrahMos

Syllabus: GS-3; Science and Technology

Context

- *Backed by BrahMos, Navy's Minicoy base to keep watch over Arabian Sea*

About

- *BrahMos is a long-range **supersonic cruise missile** system that can be launched from **land, air, or sea**.*
- *It was developed by the Indian Defence Research and Development Organisation (DRDO) and the Russian Federation's NPO Mashinostroyeniya, who form BrahMos Aerospace.*
- *BrahMos is a two-stage missile with a solid propellant booster engine in the first stage and a liquid-fuel fired ramjet engine in the second stage.*
- *The missile has a flight range of up to 290 km and features stealth technology, a guidance system, and lower dispersion of targets.*
- *BrahMos has two variants, one for anti-ship and one for land-attack roles.*

More to know

What is a Missile?

A missile is a guided airborne ranged weapon capable of self-propelled flight usually by a jet engine or rocket motor.

Cruise missile vs Ballistic missile

Propulsion

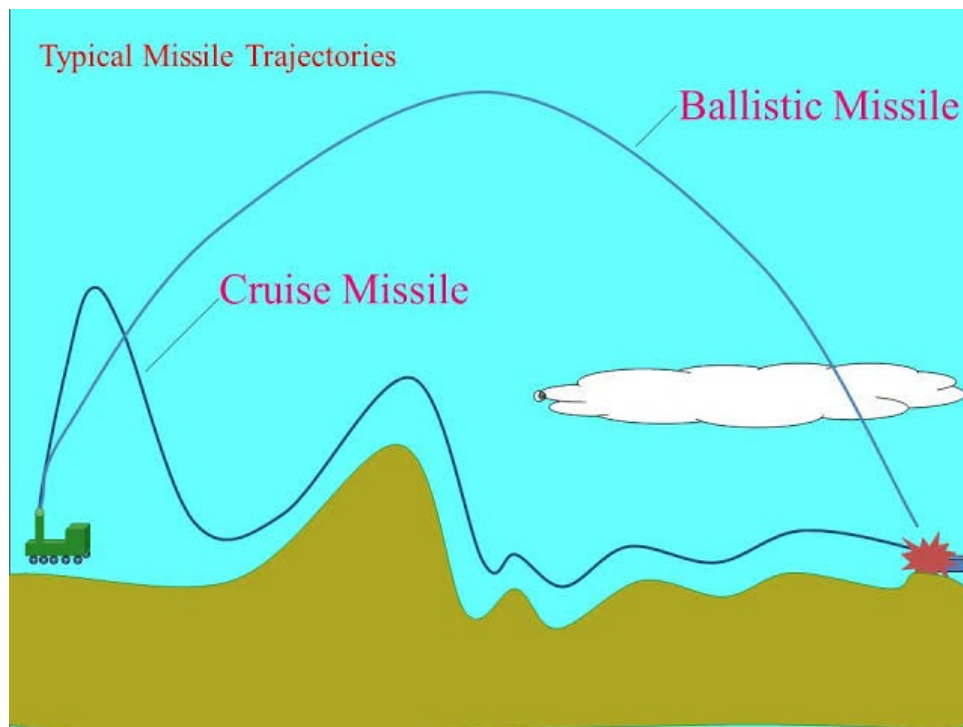
- *Cruise missiles are jet-propelled throughout their flight, while ballistic missiles are only rocket-powered during the initial phase of flight.*

Flight path

- *Cruise missiles fly at lower altitudes and maintain a relatively constant altitude throughout their flight. Ballistic missiles follow a high, arching trajectory that takes them into space, and then back down to Earth at very high speeds.*

Guidance

- *Cruise missiles are guided, jet or propeller-driven projectiles that can fly at low altitudes, follow a flexible path, and are capable of precision strikes. Ballistic missiles, on the other hand, are unguided, rocket-powered weapons that follow a high, arching trajectory before descending toward their target.*



Further classification of Missiles

Type:

- Cruise Missile
- Ballistic Missile

Launch Mode:

- Surface-to-Surface Missile
- Surface-to-Air Missile
- Surface (Coast)-to-Sea Missile
- Air-to-Air Missile
- Air-to-Surface Missile
- Sea-to-Sea Missile
- Sea-to-Surface (Coast) Missile
- Anti-Tank Missile

Range:

- Short Range Missile
- Medium Range Missile
- Intermediate Range Ballistic Missile
- Intercontinental Ballistic Missile

Propulsion:

- Solid Propulsion
- Liquid Propulsion
- Hybrid Propulsion
- Ramjet
- Scramjet
- Cryogenic

ISRO's second rocket launchport

Syllabus: GS-3: Science and Technology – Space.

Context:

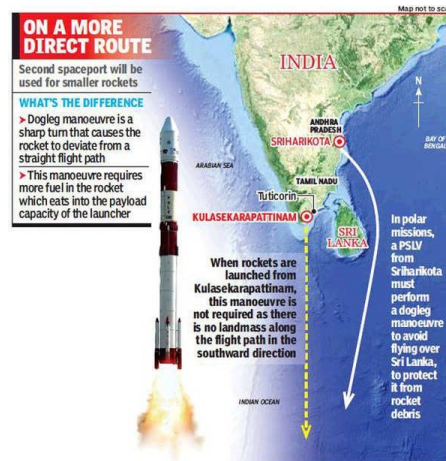
- **Reny, Prime Minister Narendra Modi** initiated the construction of ISRO's second rocket launchport.

Why does India need a new launchport?

- **Increasing Commercial Launches:** With the recent government policy opening up the space sector to private players, India anticipates a significant rise in commercial launches.
- **Relieve Pressure on Existing Facility:** To prevent overburdening ISRO's first launchport, the Satish Dhawan Space Centre (SDSC) SHAR in Sriharikota, a new launchport is necessary.
- **Diverse Launch Capabilities:** The Kulasekarapattinam launchport will handle smaller payloads, relieving SHAR which will continue to focus on bigger and heavy-lift-off missions, including India's ambitious lunar, Venus, and human-flight missions.
- **Facilitating Private Players:** The new launchport will offer opportunities for private companies to develop space-qualified sub-systems, build satellites, and launch vehicles, thereby encouraging private sector participation in the space industry.
- **Dedicated Infrastructure:** It will provide dedicated launch infrastructure specifically for on-demand commercial launches, ensuring smoother operations for these missions.

Why is the new ISRO launchport located in Tamil Nadu?

- **Geographical Advantage:** Kulasekarapattinam launchport offers a natural advantage due to its geographical location in coastal Tamil Nadu.
- **Optimized Trajectory for SSLV:** The launchport allows for a direct southward trajectory, particularly advantageous for the Small Satellite Launch Vehicle (SSLV) missions.
- **Reduced Fuel Consumption:** Unlike launches from the existing SHAR facility, which require skirting eastwards around Sri Lanka, Kulasekarapattinam's location to the west of Colombo enables a straight southward flight, saving fuel for SSLV missions.
- **Equatorial Proximity:** Both launchports, including Kulasekarapattinam, are situated in Southern India near the equator, which significantly boosts the payload capacity for satellites due to the Earth's rotational velocity.
- **Enhanced Payload Capacity:** Proximity to the equator results in increased velocity imparted due to Earth's rotation, leading to a substantial increase in payload capacity, particularly beneficial for geostationary satellites.



What are SSLVs and what are they used for?

- **SSLVs (Small Satellite Launch Vehicles):** Developed by ISRO, SSLVs are small satellite launch vehicles designed specifically for launching small satellites.
- **Design Features:** SSLVs typically have three stages and a lift-off weight of about 120 tonnes. They are 34 meters in length and 2 meters in diameter.
- **Propulsion System:** SSLVs are equipped with a combination of solid and liquid propulsion systems, with the liquid propulsion stage serving as the terminal stage.
- **Mission Objective:** SSLV missions are aimed at launching small-sized satellites weighing between 10 to 500 kg into Low Earth Orbit (LEO).
- **Types of Satellites:** These satellites, often referred to as mini, micro, or nano satellites, are smaller in size and weight compared to traditional satellites.
- **Advantages:** SSLVs are cost-effective and can efficiently insert satellites into their intended orbits, with shorter flight times compared to larger launch vehicles.
- **Suitability for Commercial and On-Demand Launches:** SSLVs are well-suited for commercial and on-demand launches due to their flexibility and cost-effectiveness.
- **Benefit to College Students and Private Players:** Satellite projects initiated by college students and private companies in the space sector have often utilized SSLV missions.
- **Accessibility:** SSLVs offer accessibility to smaller organizations and educational institutions interested in launching satellites, allowing them to participate in space exploration and research.
- **Support for Innovation:** SSLV missions support innovation and experimentation by providing a platform for diverse satellite projects, including those developed by non-traditional players in the space industry.

Jim Corbett National park

Syllabus: GS-3; Biodiversity

Context

- *In a significant development, the Supreme Court, announced a ban on tiger safaris within Uttarakhand's Jim Corbett National Park.*
- *The apex court's order specified that tiger safaris would now only be permitted in the peripheral and buffer zones surrounding the national park.*



About

- *Jim Corbett National Park is a national park in India located in the Nainital district of Uttarakhand state.*

- **The first national park in India**, it was established in 1936 during the British Raj and named **Hailey National Park** after William Malcolm Hailey, a governor of the United Provinces in which it was then located.
- In 1956, nearly a decade after India's independence, it was renamed **Corbett National Park** after the hunter and naturalist Jim Corbett, who had played a leading role in its establishment and had died the year before.
- The park was the **first to come under the Project Tiger initiative**.

Geography

- The park has sub-Himalayan belt geographical and ecological characteristics. Dense moist deciduous forest mainly consists of *Shorea robusta* (the sal tree), haldu, peepal, rohini and mango trees.
- The park encompasses the Patli Dun valley formed by **the river Ramganga**.

Wildlife

- The park is famous for **Royal Bengal tigers and Asiatic elephants**. It also contains over 586 species of resident and migratory species of birds.
- Asian Black Bear, Walking Deer, Hog Deer, Sambar, Sloth are some of the most prominent faunal species found in Jim Corbett National Park.
- Corbett Wildlife is more interesting when you know that it houses 600 species of birds. The prominent among them are Great Pied Hornbill, White-backed Vulture. Peacock, Hodgson Bushchat, orange breasted green pigeon, sea eagle, golden Oreo, fish owl etc.
- One of the most lesser-known facts about Jim Corbett National Park is that it also houses endangered reptiles like King Cobra and Mugger Crocodiles.

Why tiger safari is banned in jim corbett national park?

- The court's decision aims to balance tourism promotion with preserving the park's delicate ecosystems.
- The court also criticizes the Uttarakhand government for illegal construction and deforestation, which jeopardize the region's wildlife.

Know more

Terai Arc Landscape Program

- Corbett National Park is one of the thirteen protected areas covered by the **World Wide Fund For Nature** under their Terai Arc Landscape Program.
- The program aims to protect three of the five terrestrial flagship species, the tiger, the Asian elephant and the great one-horned rhinoceros, by restoring corridors of forest to link 13 protected areas of Nepal and India, to enable wildlife migration.

