



DAILY CURRENT AFFAIRS

Time: 45 min

Date: 08-06-2023

Table of Content

Kerala Fibre Optical Network (KFON)	1
India-U.S. Strategic Trade Dialogue (IUSSTD)	3
US-India Defence Relations	4
X-rays	6
5th State Food Safety index (SFSI) 2022-23	8
Facts In News	9
Commission of Railway Safety (CRS)	9
Exercise Air Defender 23	10
Vision Pro: Apple's First Spatial Computer	11
Scheme for "Exploration of Coal and Lignite"	12

Kerala Fibre Optical Network (KFON)

Syllabus: GS2/ Government policies & intervention

In News

- The Kerala government Monday (June 5) officially launched the Kerala Fibre Optical Network (KFON).

Kerala Fibre Optic Network (KFON)

- **About:**
 - Basically, KFON will act as an infrastructure provider. It is an optical fibre cable network of 30,000 kms, with 375 Points-of-Presence across Kerala.
 - It will provide free Internet connections to 20 lakh below-poverty-line families and connect 30,000 government institutions in Kerala.
- **Implementation:**
 - Set up by the Kerala government in collaboration with the Kerala State Electricity Board and the Kerala State Information Technology Infrastructure Ltd.

- **Beneficiaries:**
 - In the first phase, it was aimed to provide Internet connections to 14,000 BPL families, with 100 each from the State's 140 assembly constituencies. The panchayats and the urban local bodies were given the responsibility of choosing the beneficiaries.
 - Each household will get 1.5 GB of data per day at 15 Mbps speed.
- **Controversy Involved:**
 - Opposition leader V. D. Satheeshan accused the State government of serious corruption in implementing the KFON project.

Kerala as a role model

- Kerala has been declared India's first fully e-governed state, implementing the e-office system and digital literacy campaigns.
- Kerala becomes first state to declare access to internet a basic human right. Kerala already achieved the milestone of 100% literacy.
- In 2016, the United Nation passed a resolution recognising Internet access as a basic human right.

Significance

- The KFON infrastructure will also benefit private service providers as they can use its cable network.
- It will reduce the digital divide by ensuring high speed broadband internet access to all houses and government offices.
- It is also intended to give a fillip to e-governance and accelerate Kerala's journey towards being a knowledge-based economy.

What is Digital Divide?

- The term describes a gap in terms of access to and usage of information and communication technology.
- The digital divide can exist between those living in rural areas and those living in urban areas, between the educated and uneducated, between economic classes, and on a global scale between more and less industrially developed nations.

Implications of Digital Divide

- The digital divide in India has several implications on political, governance, social, economic and educational prospects.
- Without internet access, political empowerment and mobilisation are challenging in the age of social media.
- Because of the digital gap, rural areas suffer from information poverty.
- The digital gap creates economic disparities between people who can and cannot afford the technology. The digital gap influences children's ability to learn and develop.

Government's Initiative to bridge the Digital Divide

- **Optical Fibre Network (NOF-N)**, a project aimed to ensure broadband connectivity to over two lakh (200,000) gram panchayats of India by 2016.

- The government also established the **National Digital Literacy Mission and the Digital Saksharta Abhiyan** in 2014. It also announced many programmes in 2015 as part of its **Digital India drive to link the whole country**. This includes the **PM Gramin Digital Saksharta Abhiyan**, which was established in 2017
- **E-pathshala** to avail study materials for every rural and urban student.
- **Common Service Centres** which enabled the digital reach to unreachable areas.

State's projects

- **Gyandoot Project:** Gyandoot, which means 'purveyor of knowledge' in Hindi, is a government-to-citizen, intranet-based service portal, implemented in the Dhar district of the state of Madhya Pradesh, India, in January 2000. The project was designed to extend the benefits of information technology to people in rural areas by directly linking the government and villagers through information kiosks.
- **Sourkaryan & E-Seva:** Sourkaryan, which is now operational in the port city of Visakhapatnam, provides the facility for a citizen to pay property taxes online and also view details of plans and projects of the government and local bodies. Similarly the E–Seva Kendras in the Hyderabad state city is an innovative experiment towards eliminating personal contact between citizens and the bureaucracy.

Source: [IE](#)

India-U.S. Strategic Trade Dialogue (IUSSTD)

Syllabus: GS2/ International Relations

In News

- India and the U.S. pledged to streamline their export control regimes for critical technologies at the inaugural of **India-U.S. Strategic Trade Dialogue (IUSSTD)**.

About:

- IUSSTD focused on ways in which both governments can facilitate the **development** and **trade** of technologies in **critical domains** such as semiconductors, space, telecom, quantum, AI, defence, bio-tech and others.
- The dialogue is seen as a key mechanism to take forward the strategic technology and trade collaborations under the **India-US initiative on Critical and Emerging Technologies (iCET)**.
- **A regular monitoring group** will be set up to review progress in deepening cooperation in the bilateral high-tech trade and technology partnership.

Export control regime for critical technologies:

1) **Wassenaar Arrangement:**

- The Wassenaar Arrangement is to promote transparency and responsibility in transfers of conventional arms and dual-use (i.e. those having civil and military uses) goods and technologies to prevent destabilising accumulations of those items.
- It was established in 1996.
- Currently there are 42 member states and **India** is also a member of this group.

2) Nuclear Suppliers Group:

- It is a group of nuclear supplier countries that seek to prevent nuclear proliferation by controlling the export of materials, equipment and technology that can be used to manufacture nuclear weapons.
- The NSG was founded in response to the Indian nuclear test in May **1974**.
- Currently there are **48 member** states and **India** is not a member of this group.

3) Australia Group:

- The Australia Group (AG) is an informal forum of countries which seeks to ensure that exports do not contribute to the development of chemical or biological weapons.
- The group was formed in 1985.
- Currently there are 43 members (42 countries and the European union).
- **India** is a member of this group.

4) Missile Technology Control Regime (MTCR)

- The **Missile Technology Control Regime (MTCR)** is a group of 35 member states that seeks to limit the proliferation of missiles and missile technology.
- The group was formed in 1987.
- **India** is a member of this group.

Source: [TH](#)

US-India Defence Relations

Syllabus: GS2/ International Relation

In News

- India and the US recently concluded an ambitious roadmap for defence industrial cooperation to fast-track technology tie-ups and co-production of military platforms such as air combat and land systems.

About

- The new framework for cooperation was finalised during talks between Defence Minister Rajnath Singh and his visiting American counterpart Lloyd Austin.

- Both agreed to initiate negotiations on a **framework for the security of supply arrangement** and a reciprocal defence procurement agreement, which will promote long-term supply chain stability.
- Both sides also touched upon **General Electric's proposal to share technology with India for fighter jet engines** and New Delhi's plan to procure 30 MQ-9B armed drones for over USD 3 billion from US defence major General Atomics Aeronautical Systems Inc.
- India-US partnership is critical for ensuring a free, open and rules-bound Indo-Pacific region.
- They also welcomed the establishment of the **India-US Defence Acceleration Ecosystem (INDUS-X)**, a new initiative to advance cutting-edge technology cooperation.

Overview of India-US defence relations

- **New Framework for India-U.S. Defence Relationship(2005):**
 - The agreement has emerged as a major pillar of India-U.S. strategic partnership and resulting intensification in defence trade, joint exercises, personnel exchanges, collaboration and cooperation in maritime security.
 - The Defence Framework Agreement was updated and renewed for another 10 years in June 2015.
- **Defense Technology and Trade Initiative (DTTI):**
 - DTTI, launched in **2012** to bring focus on the bilateral defence trade relationship, creates opportunities for the U.S.-India co-production and codevelopment, and fostering more sophisticated science and technology cooperation.
- **Bilateral Exercises:**
 - **MALABAR exercise:**It began as an annual bilateral naval exercise between **India and the US in 1992**. Later Japan and Australia joined it in 2015 and 2020 respectively.
 - **Yudh Abhyas:**India-U.S. Army exercise began in 2002.
 - **Cope India:** Air Exercise between the Indian Air Force and United States Air Force began in 2004.
- **Major Defence Partner:** In June **2016**, the U.S. recognised India as a "Major Defence Partner", which commits the U.S. to facilitate technology sharing with India to a level commensurate with that of its closest allies and partners, and industry collaboration for defence co-production and co-development.

Foundational defence agreement: India has signed all the four foundational defence agreements with the US.

1. General Security of Military Information Agreement (GSOMIA):

- a. It was signed in **2002**.
- b. The agreement prescribed **security standards and protocols for safeguarding information** shared by the Pentagon with India's

defence ministry, as well as by US defence firms with Indian defence public sector undertakings (DPSUs).

2. **Logistics Exchange Memorandum of Agreement (LEMOA):**

- a. It was signed in **2016**.
- b. LEMOA allows the militaries of the US and India to **replenish from each other's bases**, and access supplies, spare parts and services from each other's land facilities, air bases, and ports, which can then be reimbursed.

3. **Communications Compatibility and Security Agreement (COMCASA):**

- a. It was signed in **2018**.
- b. The signing of COMCASA paved the way for the **transfer of communication security equipment** from the US to India to facilitate "interoperability" between their forces — and potentially with other militaries that use US-origin systems for secure data links.

4. **Basic Exchange and Cooperation Agreement (BECA):**

- a. It was Signed In **2020**.
- b. BECA will help India get real-time access to **American geospatial intelligence** that will enhance the accuracy of automated systems and weapons like missiles and armed drones.
- c. Through the sharing of information on maps and satellite images, it will help India access topographical and aeronautical data, and advanced products that will aid in navigation and targeting.

Significance of India-US defence relations

- The defence cooperation between both the nations will help to **counter China's** aggressive measures in India's neighbourhood and also in the Indo-Pacific region.
- Co-development and co-production of existing and new technologies will **strengthen the defence startup ecosystem** of the two countries.

Challenges

- **Russian apprehensions:** India-US deepening ties is pushing Russia towards China, as the former consider the Indo-US relations a threat to its sovereignty.
- Critics argue that increasing defence ties with the US may portray India's image as a **western ally**.

Source: [TH](#)

X-rays

Syllabus: GS 3/Science and Technology

In News

- In a phenomenal feat, Scientists have for the first time identified an element by X-raying a single atom.

About X-rays

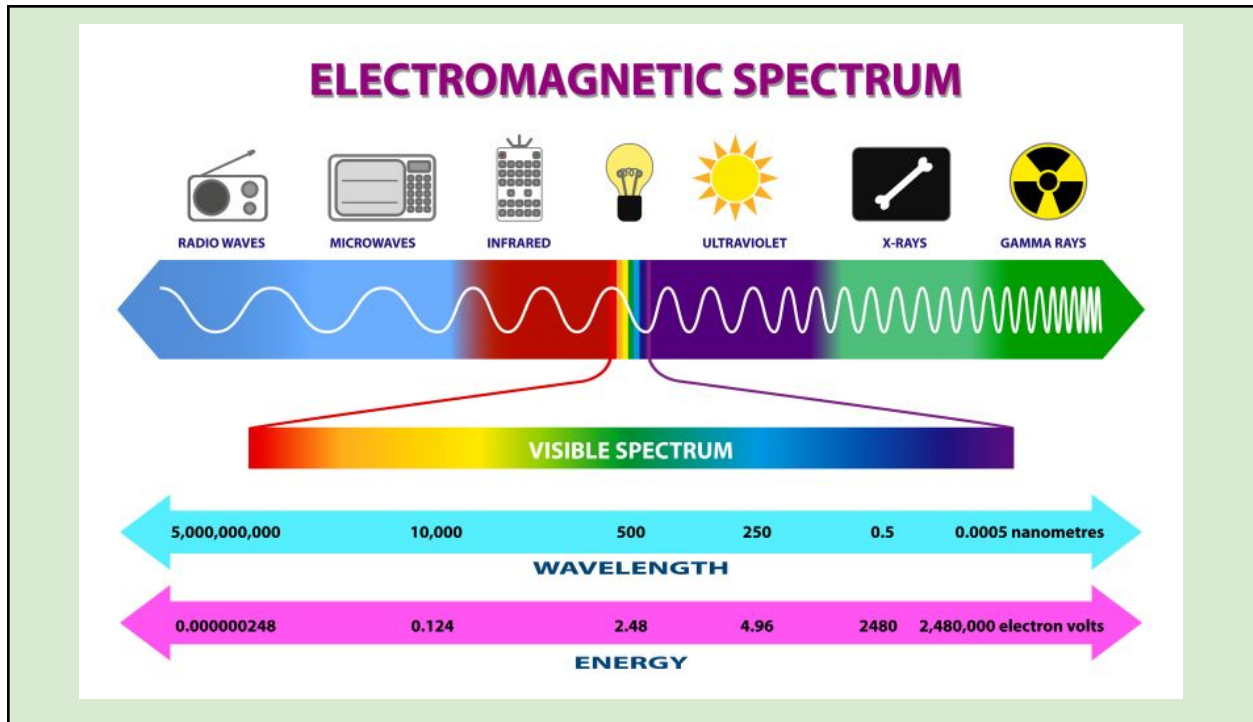
- X-rays are a form of **electromagnetic radiation**, similar to visible light.
- They were first observed and documented in 1895 by **German scientist Wilhelm Conrad Roentgen**.
 - He discovered that firing streams of X-rays through arms and hands created detailed images of the bones inside.
- X-rays have much **higher energy and much shorter** wavelengths than ultraviolet light, and scientists usually refer to X-rays in terms of their energy rather than their wavelength.

Latest Developments

- X-rays are an important way to identify the type of material.
- Scientists modified a **conventional X-ray detector** to add a sharp metal tip that would be moved to be extremely close to a sample.
 - This is to improve the detector's ability to record any signals from the atom.
 - They used a method called synchrotron X-ray scanning tunneling microscopy or SX-STM.

Do you Know?

- The **electromagnetic (EM) spectrum** is the range of all types of EM radiation. Radiation is energy that travels and spreads out as it goes – the visible light that comes from a lamp in your house and the radio waves that come from a radio station are two types of electromagnetic radiation.
- The other types of EM radiation that make up the electromagnetic spectrum are microwaves, infrared light, ultraviolet light, X-rays, and gamma rays.



Source: [TH](#)

5th State Food Safety index (SFSI) 2022-23

Syllabus: GS2/ Health

In News

- On the occasion of 5th World Food Safety Day (7th June), the Union Health Minister released the 5th State Food Safety Index (SFSI).

State Food Safety Index (SFSI)

Background: It was launched in 2018-19 by the Food Safety and Standards Authority of India (FSSAI).

Objective: The SFSI aims to foster healthy competition among the states/UTs and catalyze positive change in the food safety ecosystem throughout the country.

Methodology: The index evaluates the performance of states/UTs across six different aspects of food safety –

- o Human Resources and Institutional Data (Total – 18 %)
- o Compliance (Total – 28 %)
- o Food Testing Infrastructure (Total – 18 %)
- o Training And Capacity Building (Total – 8%)
- o Consumer Empowerment And FSSAI Initiatives (Total- 18 %)
- o Improvement in Rank of States/UTs from State Food Safety 2021-2022 (10%)

For the year 2022-23, following are the Toppers among the –

- o **Larger States:** Kerala followed by Punjab and Tamil Nadu.
- o **Smaller States:** Goa followed by Manipur and Sikkim.
- o **UTs:** J&K followed by Delhi and Chandigarh.

World Food Safety Day

- June 7 every year is observed as World Food Safety Day to throw light on the issue of food safety standards.
- The **World Health Organization (WHO)** and the **Food and Agriculture Organisation** of the United Nations (FAO) jointly enable the celebration of this day.
- **Theme for 2023: “Food standards save lives”**
- Background:
 - o **The Codex Alimentarius Commission**, in 2016, proposed to proclaim a World Food Safety Day within the framework of the United Nations.
 - o On 20 December **2018** the **United Nations General Assembly** adopted resolution 73/250 proclaiming June 7 as World Food Safety Day.

Codex Alimentarius Commission (CAC):

- It is an intergovernmental food standards body, set up in **1963**.
- CAC was established jointly by the UN’s Food and Agriculture Organisation (**FAO**) and the World Health Organisation (**WHO**), within the framework of the Joint Food Standards Programme.
- **Objective:** To protect consumer’s health and ensure fair practices in the food trade.
- **Members:** It has **189** Codex Members made up of 188 Member Countries and 1 Member Organization (The European Union).
 - o **India** became a member in 1964.
 - o Timor-Leste is the latest country to join it in 2018.
- **Session:** The Commission meets in regular session **once a year** alternating between Geneva and Rome.

Source: [PIB](#)

Facts In News

Commission of Railway Safety (CRS)

**Syllabus: GS2/ Government policies & intervention
In News**

- Investigation into the recent tragic train accident in Odisha is being conducted by the Commissioner of Railway Safety (CRS).

Commissioner of Railway Safety (CRS)

- **About:** The Commission of Railway Safety (CRS) is a government body that acts as the railway safety authority in the country. Rail safety commissioners are part of CRS.
- **Purpose:** CRS deals with matters related to safety of rail travel and operations, among some other statutory functions – inspectorial, investigatory, and advisory – as laid down in the Railways Act, 1989.
- **Administrative Control:** Ministry of Civil Aviation (MoCA).
 - The CRS does not report to the Ministry of Railways of the Railway Board.
- **Headquarter (HQ):** Lucknow, Uttar Pradesh

Why is it under MoCA Control?

- The reason or principle behind this is to keep the CRS insulated from the influence of the country's railway establishment and prevent conflicts of interest.
- The separation of CRS from the Railway Board enhances the credibility of safety oversight and investigations.

Source: [IE](#)

Exercise Air Defender 23

Syllabus: GS3/ Defence, GS2/ IR

In News

- Germany is preparing to host the biggest air deployment Exercise Air Defender 23 in NATO's history.

About

- The Air Defender 23 exercise will see 10,000 participants and 250 aircraft from 25 nations respond to a simulated attack on a NATO member country.
- The exercise will be held **across Germany**, with some of the training taking place at Ramstein Air Base, which is one of **NATO's largest air bases**.
- The exercise is being held in response to the increased threat posed by **Russia following its invasion of Ukraine**. The exercise is designed to demonstrate **NATO's readiness to respond to any threat to its airspace**.
- Sweden, which is hoping to join the alliance, and Japan are also taking part in the exercise.

North Atlantic Treaty Organization (NATO)

- About:
 - North Atlantic Treaty Organization is a **military alliance** (also called the **Washington Treaty**) made up of the **United States, Canada, France, and eight other European countries**.
 - It was **founded in 1949**.

- The key purpose of NATO's formation was to create a **"collective defence" against any potential German or Soviet Union** attack in the aftermath of World War II.
- **Article 5:** If a NATO member attacks another member, it is considered 'an attack on all NATO members, according to Article 5 of NATO.
- **Headquarters:** Brussels, Belgium
- India is **not a member country** of NATO.
- **Membership of NATO:**
 - It is open to **all European nations that fulfil certain criteria** that include "a functioning **democratic political system** based on a **market economy**; fair treatment of **minority populations**; a **commitment to resolve conflicts peacefully**; an ability and **willingness to make a military contribution to NATO operations**; and a commitment to **democratic civil-military relations and institutions**".
 - New members are admitted with the unanimous consent of **all members**.

Source: ET

Vision Pro: Apple's First Spatial Computer

Syllabus: GS3/ Science & Technology

In News

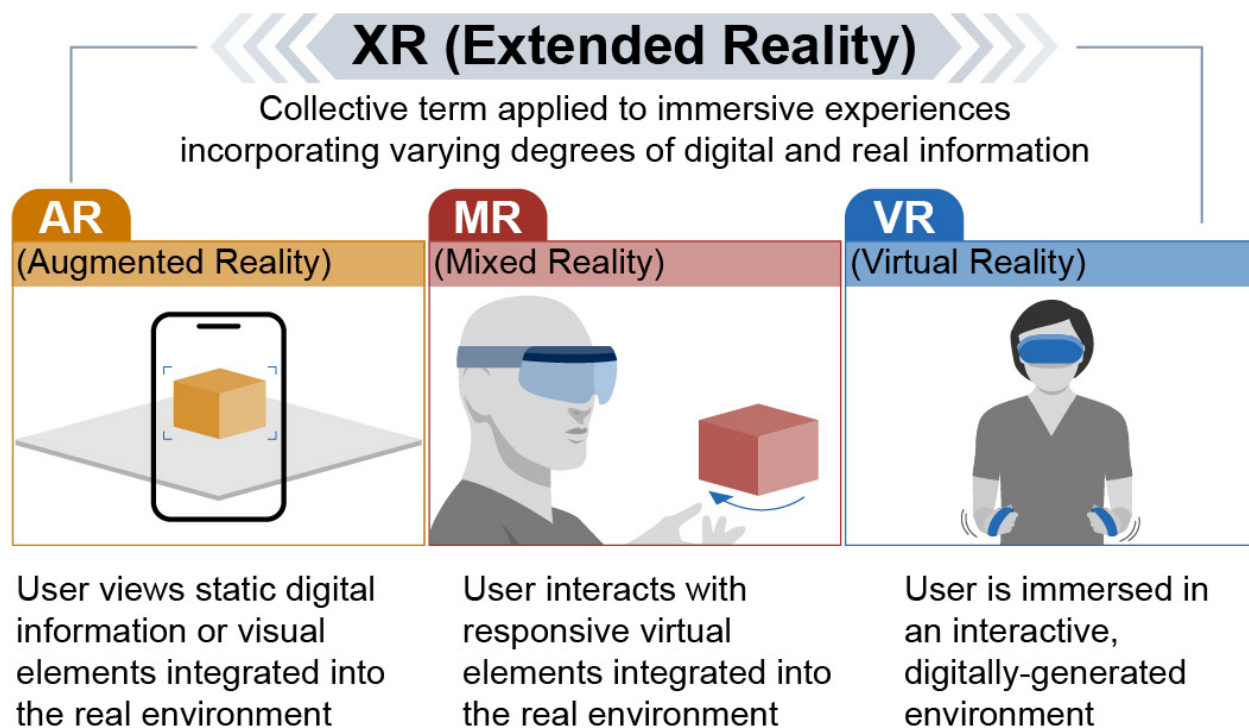
- Apple has unveiled the Vision Pro, a mixed reality headset that allows **"spatial computing"** by using the wearer's eyes, voice and hands.

About

- Vision Pro is essentially an **augmented-reality (AR)** headset that **"seamlessly" blends the real and digital worlds**. The device can switch between augmented and full virtual reality (VR) using a dial.
- Apple has described the product as a **"Spatial Computer"**.

What is Spatial computing?

- Spatial computing offers a **seamless machine to machine interaction or human-machine interaction** in a three-dimensional world while using augmented reality (AR), virtual reality (VR) and mixed reality.
- Spatial computing was defined in **2003 by Simon Greenwold**.
- With the increasing adoption of the **IoT, VR and AR applications** and devices the scope of spatial computing has expanded. It digitizes the processes, collects the data via sensors, and allows the computer hardware to control the object's functions and operations.



Source: [IE](#)

Scheme for “Exploration of Coal and Lignite”

Syllabus: GS 1/3/Natural Resources/Energy

In News

The Cabinet Committee on Economic Affairs (CCEA) approved the continuation of a central-sector scheme for “Exploration of Coal and Lignite” with an estimated outlay of ₹2,980 crore from 2021-22 to 2025-26.

About Central Sector Scheme of “Exploration of Coal and Lignite scheme”

- Under this scheme, exploration for Coal and Lignite is conducted in two broad stages:
 - **Promotional (Regional) Exploration:** Approximately, 1300 sq. km area will be covered under Regional exploration and
 - **Detailed Exploration in Non-Coal India Limited blocks:** Approximately 650 sq. km area will be covered under Detailed exploration.
- Exploration for Coal and Lignite is required to prove and estimate coal resources available in the country which helps in preparing detailed project report to start coal mining.
- The Geological reports prepared through these exploration is used for auctioning new coal blocks and the cost is thereafter recovered from successful allocatee.

Additional Information

Coal

- Coal is a one of the important minerals which is mainly used in the generation of thermal power and smelting of iron ore.
- It occurs in rock sequences mainly of two geological ages, namely Gondwana and tertiary deposits.
 - The Indian coal deposits are primarily concentrated in the **Gondwana** sediments occurring mainly in the **eastern and central parts of Peninsular India**, although Gondwana coal deposits also occur in Assam and Sikkim in the northeastern part of the country.
 - The Tertiary coal-bearing sediments are found in Assam, Arunachal Pradesh, Nagaland, and Meghalaya.

Lignite

- Lignite is a **low-grade brown coal**, which is soft with high moisture content.
- Indian lignite deposits occur in the Tertiary sediments in the southern and western parts of the peninsular shield particularly in Tamil Nadu, Puducherry, Kerala, Gujarat, Rajasthan, and Jammu & Kashmir.
 - The principal lignite reserves are in Neyveli in Tamil Nadu and are used for the generation of electricity.

Source: [TH](#)