

26 October, 2023

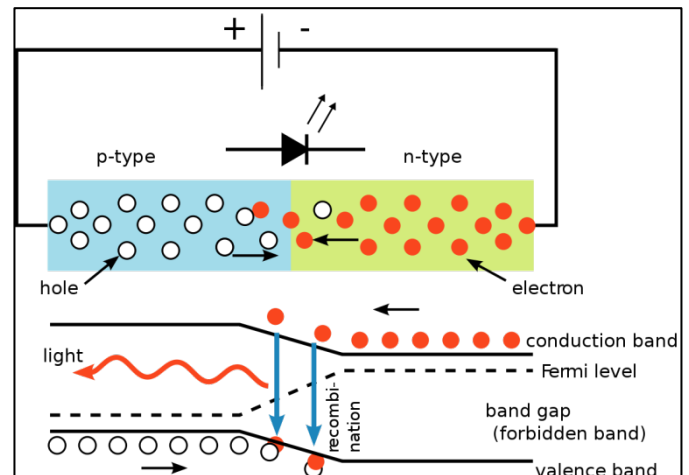
## Japan-India Semiconductor Supply Chain Partnership

**Context:** Cabinet has approved India-Japan Semiconductor Supply Chain Partnership to boost tech collaboration and semiconductor production.

- The MoC is between India's Ministry of Electronics and Information Technology and Japan's **Ministry of Economy, Trade, and Industry** for the Japan-India Semiconductor Supply Chain Partnership.
- The main objective of the MoC is to **strengthen cooperation in advancing the semiconductor supply chain**, recognizing its importance for industries and digital technologies.
- The MoC takes effect upon signing and is **valid for five years**.
- It encourages **government-to-government (G2G) and business-to-business (B2B) collaboration** to enhance the semiconductor supply chain and leverage complementary strengths.
- The agreement also envisions potential employment opportunities in the IT sector resulting from increased collaboration.
- **India Semiconductor Mission (ISM) under Digital India Corporation (DIC)** drives semiconductor and display ecosystem development.
- **India Semiconductor Mission:**
  - The ISM (India Semiconductor Mission) was **initiated in 2021** with a total financial allocation of Rs76,000 crore, operating under the Ministry of Electronics and Information Technology (MeitY).
  - It is a pivotal component of a comprehensive strategy to **establish a sustainable semiconductor and display ecosystem** within India.
  - The primary objective of the program is to **offer financial support to companies** investing in semiconductor, display manufacturing, and design sectors.
  - ISM is designed to be led by global experts in the semiconductor and display industries, serving as the **central agency to ensure efficient and coherent implementation** of the schemes.

### Key Components of the ISM:

- **Semiconductor Fabs Scheme:** Offers financial support to establish semiconductor fabrication facilities, attracting substantial investments.
- **Display Fabs Scheme:** Provides fiscal assistance for TFT LCD and AMOLED display manufacturing to attract significant investments.
- **Compound Semiconductors, Silicon Photonics, Sensors Fab, and Semiconductor ATMP/OSAT Scheme:** Grants 30% of Capital Expenditure as financial support for facilities related to compound semiconductors, silicon photonics, sensors (including MEMS), and semiconductor assembly, testing, marking, and packaging.
- **Design Linked Incentive (DLI) Scheme:** Offers financial incentives and design support for semiconductor design, including ICs, Chipsets, SoCs, Systems & IP Cores.



### Semiconductors

- A semiconductor is typically made of materials like **silicon**.
- It **conducts electricity better than insulators** (e.g., glass) but not as well as pure conductors (e.g., copper or aluminum).
- Semiconductors play a vital role in **emerging technologies like AI, IoT, 5G communication, cloud computing, automation, and electric vehicles**.
- Their applications range from basic electronic devices and cars to strategic operations.

## Pradhan Mantri Krishi Sinchayee Yojana-Accelerated Irrigation Benefit Programme (PMKSY-AIBP)

**Context:** The Cabinet Committee on Economic Affairs included the Jamrani Dam Multipurpose Project in PMKSY-AIBP for Uttarakhand.

- **Central assistance** will be provided in a **90:10 ratio (Centre:State)** for the project's remaining work components under PMKSY-AIBP.
- The project is scheduled for completion by March 2028.
- It will bring an additional 57 thousand hectares of **land under irrigation** in Uttarakhand's Nainital and **Udham Singh Nagar** districts, as well as Uttar Pradesh's **Rampur** and **Bareilly** districts.
- The project will also supply 42.70 million cubic meters (MCM) of **drinking water to Haldwani** and nearby areas, benefiting over 10.65 lakh people.
- **Hydro power generation** of approximately **63.4 million units** is expected, with an installed capacity of 14 MW.

### Face to Face Centres





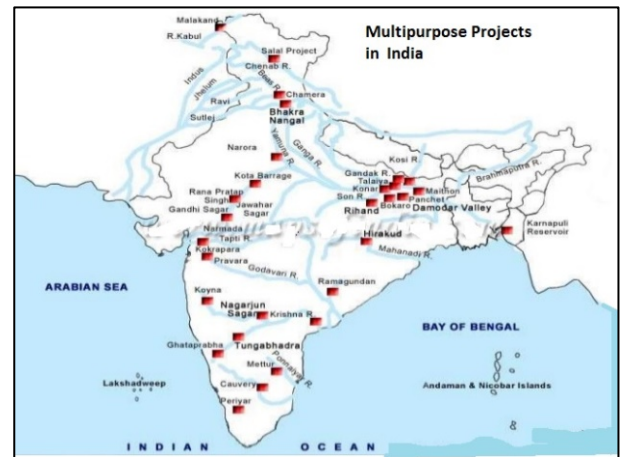
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## ➤ PMKSY

- Launched in **2015** as a **Centrally Sponsored Scheme**.
- Funding allocation between the Center and States is 75:25, with exceptions for the northeastern region and hilly states at 90:10.
- **Objectives:**
  - Facilitate the **convergence of investments in irrigation** at the field level.
  - Expand the cultivable area under **assured irrigation** (Har Khet ko pani).
  - Enhance **on-farm water use efficiency** to reduce water wastage.
  - Promote the adoption of **precision-irrigation** and other **water-saving technologies** (More crop per drop).
  - Encourage the **recharge of aquifers** and the adoption of sustainable water conservation practices.
  - Explore the **feasibility of reusing treated municipal wastewater for peri-urban agriculture**.
  - Attract **greater private investment** in precision irrigation systems.
- **PMKSY is formulated by amalgamating ongoing schemes, which include:**
  - **Accelerated Irrigation Benefit Programme (AIBP)** under the Ministry of Water Resources, River Development & Ganga Rejuvenation.
  - **Integrated Watershed Management Programme (IWMP)** under the Department of Land Resources, Ministry of Rural Development.
  - **On-Farm Water Management (OFWM)** under the Department of Agriculture and Cooperation (DAC).
- Implementation of PMKSY is carried out through decentralized approaches, involving State Irrigation Plans and District Irrigation Plans.

## ➤ Multipurpose Projects in India

- **Power Generation:** They provide clean, low-cost electricity for industry and agriculture
- **Flood Control:** These projects store water, preventing and controlling floods.
- **Soil Conservation:** By slowing down water flow, they aid in soil preservation.
- **Irrigation:** Multipurpose projects supply water for dry-season irrigation through canals.
- **Afforestation:** Trees are planted near reservoirs, preserving wildlife and ecosystems.
- **Water Navigation:** They support cost-effective inland water transportation for heavy goods.
- **Fisheries:** Ideal conditions for fish breeding are created.
- **Tourist Attractions:** These projects are developed and maintained as popular tourist destinations.



## Preventive Detention

**Context:** The Telangana government's use of its preventive detention law has been questioned by the Supreme Court in multiple instances.

### What is Preventive Detention?

- Preventive detention involves the state detaining a person **solely on suspicion, without trial or court conviction, for up to a year, extendable**.
- It differs from **pre-trial detention**, which applies to undertrial individuals accused of crimes.
- In countries like **Britain**, the **United States**, and **Canada**, preventive detention is mainly **used during wartime**.
- In India, the Constitution permits preventive detention under **Article 22 within Part III**, despite emphasizing fundamental rights and individual liberty.

### Under which laws can detention be done?

- **The National Security Act and COFEPOSA** (Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974) are federal laws that permit preventive detention.
- Furthermore, **25 Indian states have established their own preventive detention laws**; each designed to address specific local law and order concerns.
- For example, in **Telangana**, The Telangana Prevention of Dangerous Activities of Bootleggers, Dacoits, Drug-Offenders, Goondas, Immoral Traffic Offenders, Land-Grabbers, Spurious Seed Offenders, Insecticide Offenders, Fertilizer Offenders, Food Adulteration Offenders, Fake Document Offenders, Scheduled Commodities Offenders, Forest Offenders, Gaming Offenders, Sexual Offenders, Explosive Substances Offenders, Arms Offenders, Cyber Crime Offenders, and White Collar or Financial Offenders Act, 1986 (PD Act) is in place.
- Other states, such as **Tamil Nadu**, have enacted similar laws, like the Prevention of Dangerous Activities of Bootleggers, Drug Offenders, Forest Offenders, Goondas, Immoral Trafficking Offenders, and Slum Grabbers Act, 1982.
- Additionally, **Gujarat** has the Prevention of Antisocial Activities Act, 1985.

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- Bihar utilizes the Control of Crimes Act, 1981, among others.

### Article 22 and Preventive Detention

- **Article 22** in the Constitution provides **protection against arrest and detention** but has an **exception (Article 22(3)(b))** for those detained under preventive detention laws.
- Preventive detention laws **allow the state**, typically the district magistrate, to **detain a person to maintain "public order,"** and this power can be delegated to the police.
- If **detention is for more than three months**, **Article 22(4)** mandates the approval of an **Advisory Board**. These Boards usually **consist of retired judges and bureaucrats**, and the **detainee may not have legal representation** before the Board.
- If the Advisory Board confirms the detention, the detainee can challenge the detention order in court.
- **Article 22(5)** requires the **state to communicate the grounds of detention** to the detainee promptly and offer them the earliest opportunity to make a representation against the order.
- The grounds for detention must be communicated **in one installment**, and the state cannot introduce new grounds to strengthen the original detention order. The grounds must be presented in a language understood by the detainee.
- However, **Article 22(6)** allows the **state not to disclose facts it deems "against the public interest to disclose,"** which can **partially dilute the safeguard provided in Article 22(5)**.

## NEWS IN BETWEEN THE LINES

### Jamrani Dam Project



Recently, the Cabinet Committee on Economic Affairs (CCEA) has approved a central support of ₹1,557.18 crore for the Jamrani dam project in Nainital district, Uttarakhand.

#### About Jamrani Dam Project:

- The project involves the construction of a dam near Jamrani village, which will be located across the river **Gola**, a tributary of the **Ram Ganga** in Nainital.
- The dam will facilitate the supply of water to the existing Gola barrage through its canals.
- The Jamrani dam, with a height of **150.6 meters**, is planned for construction on the Gola river.
- The project has been included in the Pradhan Mantri Krishi Sinchai Yojana (PMKSY).
- The Jamrani dam project is targeted to be completed by the year 2028.
- The dam project is expected to generate **63 million units** of electricity annually.

### Human Rights Watch



Recently, the Human Rights Watch accused Israel of using white phosphorus munitions in Gaza, posing a threat to civilians' safety and long-term well-being.

#### About Human Rights Watch:

- Human Rights Watch (HRW) was co-founded in **1978** as "**Helsinki Watch**" to monitor the **Soviet Union's compliance** with the Helsinki Accords.
- It expanded to become Human Rights Watch in **1988**.
- It shared the Nobel Peace Prize in **1997** as a founding member of the International Campaign to Ban Landmines.
- It played a leading role in the **2008** treaty banning cluster munitions.
- It advocates for **refugees**, children, migrants and political prisoners.
- It **opposes violations of basic human rights** as per the Universal Declaration of Human Rights (UDHR).

### The International Solar Alliance



Recently, the International Solar Alliance (ISA), consisting of 116 member countries, announced its intention to compile and release the first-ever 'global solar stock-take report in November.

#### About the International Solar Alliance:

- The International Solar Alliance (ISA) is an **intergovernmental organization** launched **30<sup>th</sup> November 2015**.
- It was founded by the Prime Minister of India (Narendra Modi) and the President of France (François Hollande) at the **United Nations Climate Change Conference in Paris**.
- It aims to install **1000 GW of solar energy** capacity and mitigate **1000 million tonnes of CO<sub>2</sub>** annually.

#### Vision and Mission:

- **Vision:** "Let us together make the sun brighter."
- **Mission:** "Every home, no matter how far away, will have a light at home."

Headquarter: Gurugram, India

### Cubism



#### About Cubism:





- Cubism was an influential **art movement** that began in **1907**, characterized by depicting objects from multiple viewpoints simultaneously.
- The movement was pioneered by Spanish artist **Pablo Picasso** and French painter **George Braque**.
- **Cubism rejected the traditional approach of art** as a direct copy of nature, instead emphasizing two-dimensional representation and deconstruction of objects.
- Artists in Cubism aimed to show an object's **various sides and facets on a flat canvas**, moving away from the illusion of three-dimensionality.
- Cubism was influenced by the **scientific and technological advancements** of the early **1900s**, reflecting a new understanding of the atom and matter's interrelated fragments.
- Cubism had a profound impact on the art world, influencing subsequent movements and artists, contributing to the development of modern art.

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<p><b>Shi Yan 6</b></p> 	<p>Recently, Sri Lanka's Foreign Ministry announced that the Chinese research vessel Shi Yan 6 had arrived at the Colombo port.</p> <p><b>About Shi Yan 6:</b></p> <ul style="list-style-type: none"> <li>➤ Shi Yan 6 is a <b>Chinese research and survey vessel</b>.</li> <li>➤ It belongs to a series of Chinese <b>oceanographic</b> survey vessels.</li> <li>➤ The vessel has a carrying <b>capacity of 1115 DWT</b> (deadweight tonnage).</li> <li>➤ It is crewed by <b>60</b> individuals.</li> </ul> <p><b>Security Concerns:</b> Sri Lanka delayed granting permission for the ship's arrival, primarily due to security concerns raised by India.</p>
<p><b>Guided Missile Submarines</b></p> 	<p>Recently, China has launched its first nuclear-powered guided missile submarines, according to the Pentagon's report.</p> <p><b>About:</b></p> <ul style="list-style-type: none"> <li>➤ These submarines, known as SSGNs (<b>Ship Submersible Guided Missile Nuclear</b>), enable China to <b>possess land and sea attack options</b> which were historically the domain of the <b>United States and Russia</b>.</li> <li>➤ SSGNs were originally developed during the <b>Cold War</b> by the Soviet Union to target aircraft carriers with <b>cruise missiles, long-range, precision-guided weapons</b> that fly at subsonic speeds close to the sea surface.</li> <li>➤ Cruise missiles' low-altitude flight profile allows them to evade <b>radar detection</b>, making them a stealthy and effective means of attack.</li> </ul> <p><b>Pentagon's Report:</b> The Pentagon's report, published on October 20, provides confirmation that modified submarines observed in <b>Chinese shipyards are Type 093B guided missile submarines</b>.</p>
<p><b>Antarctica's Lost World</b></p> 	<p><b>Scientists have uncovered a vast ancient landscape in East Antarctica's Wilkes Land, an area comparable in size to Belgium or the U.S. state of Maryland.</b></p> <p><b>About:</b></p> <ul style="list-style-type: none"> <li>➤ The landscape is situated in <b>East Antarctica's Wilkes Land</b> region along the <b>Indian Ocean</b>, covering an area approximately the size of <b>Belgium</b>.</li> <li>➤ This buried landscape offers a glimpse of the past when Antarctica had a warmer climate, ranging from the present-day climate of <b>Patagonia</b> to something closer to tropical.</li> <li>➤ The ice above the ancient landscape measures about <b>2.2-3 kilometers</b> in thickness.</li> <li>➤ The landscape's formation was influenced by rivers, tectonics, and glaciation over an extended geological timespan.</li> <li>➤ About <b>34 million years ago</b>, Antarctica's climate resembled modern cold temperate rainforests in regions like Tasmania and Patagonia.</li> <li>➤ Antarctica was once part of the Gondwana <b>supercontinent</b> before separating due to plate tectonics, leading to its geological isolation.</li> </ul> <p><b>Mystery of Antarctica's Subsurface:</b> The land beneath Antarctica's ice is less explored than the surface of Mars.</p> <p><b>Historical Significance:</b> This landscape dates back at least <b>14 million years</b>, possibly extending beyond <b>34 million years</b> when Antarctica underwent a deep freeze.</p>
<p><b>Place in News</b></p> <p><b>Lebanon</b></p>	<p>Recently, Lebanon's Hezbollah leader Hassan Nasrallah held a meeting with officials from Hamas and Islamic Jihad.</p> <p><b>Lebanon (Capital: Beirut)</b></p> <p><b>Location:</b> Lebanon is located in the <b>Middle East</b>, bordered by the <b>Mediterranean Sea</b> to the west, <b>Syria</b> to the east and north, and <b>Israel</b> to the south.</p> <p><b>Political Boundaries:</b> Lebanon is bounded by Syria to the east and north, Israel to the south.</p> <p><b>Geographic Features:</b></p> <ul style="list-style-type: none"> <li>➤ The <b>Mediterranean coastline</b> is a prominent geographic feature.</li> <li>➤ The <b>Bekaa Valley</b>, nestled between the <b>Mount Lebanon</b> and <b>Anti-Lebanon</b> mountain ranges, is a significant valley in the country.</li> </ul> 

## POINTS TO PONDER

- ❖ How many Asian countries have hosted the Olympics, and which one hosted the games twice in 1964 and 2020? - **Three; Japan**
- ❖ The Indo-Tibetan Border Police (ITBP) is a specialized force. What was its recent joint bilateral exercise? - **Exercise Harimau Shakti-2023**
- ❖ Name the two countries, including Somalia, that had smallpox infections in 1976 but eradicated it by February 1977. - **India and Bangladesh**
- ❖ Which organization is responsible for implementing Traceability, Certification, and Branding of "KASTURI Cotton India"? - **The Cotton Textiles Export Promotion Council (TEXPROCIL)**
- ❖ Which country had the highest migration flows to Organisation for Economic Co-operation and Development (OECD) countries in 2021 and 2022? - **India**

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