

# NEWS TODAY

## INDIAN SPACE RESEARCH ORGANISATION (ISRO) LAUNCHES NEXT-GENERATION NAVIGATIONAL SATELLITE NVS - 01

● NVS-01 is **first of the India's second-generation satellites envisaged for NavIC (Navigation by Indian Constellation) services.**

### ● Key highlights of NVS-01

- NVS-01, **weighing 2,232 kg satellite** - heaviest in constellation, was launched using **Geosynchronous Satellite Launch Vehicle (GSLV) rocket.**
- It'll have **indigenously developed Rubidium atomic clock** to provide accurate locations.
- It has a **mission life of over 12 years**, which in itself is **longer than 10-year life of first-generation (existing) satellites.**
- It'll send **signals in a third frequency, L1, which increases interoperability** with other satellite-based navigation systems.
- It would **provide real-time positioning and timing services over India** and a region approximately **1,500 km around mainland.**

● NavIC, **earlier known as Indian Regional Navigation Satellite System (IRNSS)**, is designed with **constellation of seven satellites.**

- **Three satellites are placed in geostationary orbit and four satellites** are placed in **inclined geosynchronous orbit.**

- **NavIC offers two services** - Standard Position Service (SPS) for civilian users and Restricted Service (RS) for strategic users. These two services are provided in **both L5 (1176.45 MHz) and S band (2498.028 MHz).**

● **Application of Regional Navigation Satellite System:** Terrestrial, Aerial and Marine Navigation; Disaster Management; Precise Timing; Scientific research; etc.

### NAVIGATION SYSTEMS AROUND WORLD

- There are **four global satellite-based navigation systems** — US's **Global Positioning System (GPS)**; Russian **GLONASS (GLObalnaya NAVigatsionnaya Sputnikovaya Sistema)**, European **Galileo**, and Chinese **Beidou.**
- **Japan has a four-satellite system** that can augment GPS signals over country.

## GREENPEACE PUBLISHED “FOREVER TOXIC: THE SCIENCE ON HEALTH THREATS FROM PLASTIC RECYCLING” REPORT

● Report has been published ahead of **second session of Intergovernmental Negotiating Committee to develop a Global Plastics Treaty (GPT).**

- In 2022, at UN Environment Assembly in Nairobi, 175 countries have agreed to **develop legally binding global treaty called GPT to end plastic pollution by 2024.**

### ● Key highlights of report

- **Three poisonous pathways for recycled plastic material to accumulate toxic chemicals**

- **Direct contamination** from toxic chemicals in virgin plastic.
- **Substances like plastic containers for pesticides**, cleaning solvents and others that **enter recycling chain** and can contaminate plastic.
- **Recycling process**, when plastics are heated.

- Plastic production is **forecast to triple by 2060.**

### ● Threats from plastic recycling

- Recycled plastics **contain higher levels of chemicals that can poison people and contaminate ecosystems.**
- Plastic recycling releases persistent **carcinogenic compounds** (dioxins and furans).
- **Increasing risk of large fires at plastic recycling facilities**, especially in those that hold e-waste plastics with used batteries.

### ● Key Recommendations

- **Institute “polluter pays” principle** (those who produce pollution **should bear costs of managing** it to prevent damage to human health/environment) for plastic waste management.
- **Promote non-combustion technologies** for plastic stockpiles and waste disposal.



# MINISTRY OF POWER WAIVES INTER-STATE TRANSMISSION SYSTEM (ISTS) CHARGES ON OFFSHORE WIND, GREEN HYDROGEN, AMMONIA PROJECTS FOR 25 YEARS

## • Key decisions

- **Complete waiver** of ISTS charges has been given for **Off-shore Wind Power (OWP) projects** commissioned **on or before 31st December, 2032 (for 25 years from date of commissioning)**.
  - However, **projects commissioned from 1st January 2033 would be given graded ISTS charges**.
- **Complete waiver for Green Hydrogen/Green Ammonia** production units, using **Renewable Energy (RE), Pumped or Battery Storage System or any hybrid combination**.
  - Projects commissioned **on or before 31st December, 2030** will be eligible for this waiver. **Projects after December 31, 2030, will attract graded transmission charges** thereafter.
- Earlier, government had ordered waiver of ISTS charges on transmission of electricity generated from new hydro-power projects.
- **Significance to waive ISTS charges**
  - **Facilitate wider execution** of offshore wind energy initiatives.
  - **Promote expansion** of green hydrogen and green ammonia projects.
  - **Encourage off-take of RE** from energy storage system projects.
- **OWP is the use of wind farms constructed in bodies of water**, usually in ocean on continental shelf, **to harvest wind energy to generate electricity**.
- **Green Hydrogen is hydrogen produced from water using RE sources**.
- **Green ammonia is a derivative of green hydrogen and is used as energy in transport and storage vectors**, shipping fuel, and as a fertilizer.

# INDIA TO TRAIN ASSOCIATION OF SOUTH EAST ASIAN NATIONS (ASEAN) WOMEN IN UNITED NATIONS PEACEKEEPING (UNPK) OPERATIONS

- Following the Defence Minister's 2022 proposal, India is set to conduct **two initiatives for women personnel** from South East Asia, under India-ASEAN Initiative for women in UNPK operations, as part of expanding **India-ASEAN defence cooperation**.
  - One, **conduct of tailor-made courses for women peacekeepers of ASEAN member-states** at Centre for UNPK in India. Under this, total 20 peacekeepers, two from each country, would be trained.
  - Second, **'Table Top Exercise' for women officers from ASEAN** incorporating facets of UNPK challenges to be conducted.
- **Women in Peacekeeping Forces**
  - For the first time, an **all-female Formed Police Unit (FPU) has deployed in Liberia in 2007**.
  - **As per UN, in 2020**, out of approximately 95,000 peacekeepers, **women constitute 4.8% of military contingents and 10.9% of formed police units**.
- **Importance of women peacekeepers**
  - They can **better access population including children**, thereby generating critical information that would otherwise be difficult to reach.
  - They are **essential enablers to build trust and confidence with local communities**.
  - They serve as **powerful mentors and role models for women and girls**, setting examples for them to advocate for their own rights and pursue non-traditional careers.

## UNPK MISSION

- It aims to assist host countries to **transition from situations of conflict to peace**.
- **It is guided by three basic principles:** Consent of parties; Impartiality; and Non-use of force except in self-defence and defence of the mandate.
- Peacekeeping operations get their **mandates from UN Security Council**.

# CENTRAL LAW ENFORCEMENT AGENCIES TO GET ACCESS TO FINGERPRINT DATABASE TO SOLVE CRIMES FASTER: MINISTRY OF HOME AFFAIRS

- **CBI, NIA and Narcotics Control Bureau (NCB)** will be provided access to **National Automated Fingerprint Identification System (NAFIS)**.
  - It will **integrate central agencies' data** with that of **states' police records**. Thus, enabling agencies to **upload, trace and retrieve the data** in real time, thereby tracing **criminals and solving cases faster**.
- NAFIS, web-based application, is a **central repository of criminal fingerprint data** generated in states and Union territories.
  - It was **developed by National Crime Records Bureau (NCRB)** in 2022.
  - It assigns a **unique 10-digit National Fingerprint Number (NFN)** to each person arrested for a crime.
  - This unique ID will be used for the **person's lifetime, and different crimes registered under different FIRs will be linked to same NFN**.
  - Database facilitates integrated **palm print, fingerprint enrolment and portrait capture, storage and matching**. Only **authorized officials** can edit, modify or search the database.
  - National-level NAFIS solution is implemented and **managed by Central Finger Print Bureau (CFPB)** at NCRB.

## FINGERPRINTING IN INDIA

- **William Herschel**, chief administrator of Hooghly District, Bengal, used fingerprinting to reduce fraud and forgeries.
- CFPB came into being in 1955 in Calcutta under **administrative control of Intelligence Bureau**.
- CFPB first began to automate fingerprint database through **India's first Automated Fingerprint Identification System** in 1992, called **Fingerprint Analysis & Criminal Tracing System (FACTS 1.0)**.

# DIRECT-SEEDING RICE (DSR) METHOD GAINS PROMINENCE IN INDIA'S PADDY GROWING REGIONS

- It is reported that **labour shortages and rains getting delayed are pushing farmers** in several leading rice-growing states to adopt DSR method.
- DSR is a system wherein **rice seeds are sown directly** into field, as opposed to traditional method of **growing seedlings in a nursery**, then transplanting into flooded field.
  - In transplanting, **farmers prepare nurseries where paddy seeds are first sown** and raised into young plants. These seedlings are then uprooted and replanted 25-35 days later in main field with standing water.
  - In DSR, **water is replaced by real chemical herbicides**, and in transplanting, **standing water acts as herbicide and prevents growth of weeds** by denying them oxygen in submerged stage.
- **Advantages of DRI**
  - **Efficient, sustainable, and economically-viable rice** production systems.
  - **No significant reduction of yield** under optimal conditions.
  - **Conserves scarce resources** like water and labours.
- **Constraints:** Seeds exposed to **birds and pests**; weed management; higher risk of lodging, risk of poor or non-uniform crop establishment etc.

## CLIMATIC REQUIREMENTS FOR RICE

- **Hot and humid** climate;
- Best suited to regions which have high **humidity, prolonged sunshine and an assured supply of water**;
- Average temperature required throughout the life period ranges **from 21 to 37° C**.

## ALSO IN NEWS

 <p><b>National Land Monetisation Corporation (NLMC)</b></p>	<ul style="list-style-type: none"> <li>• Government will soon hire the NLMC chief.</li> <li>• NLMC is a <b>wholly owned government company</b> established as <b>Special Purpose Vehicle</b> to carry out <b>monetisation of government and public sector assets</b> in form of surplus, unused or underused land assets.           <ul style="list-style-type: none"> <li>➢ It falls under the <b>administrative jurisdiction of Ministry of Finance</b>.</li> <li>➢ It was announcement in <b>Union Budget 2021-22</b>.</li> </ul> </li> </ul>
 <p><b>Round Tripping</b></p>	<ul style="list-style-type: none"> <li>• In the backdrop of <b>growing menace of round-tripping</b> of funds, several start-ups, including prominent unicorns, have <b>received tax notices</b>.</li> <li>• <b>Round tripping</b> refers to money that <b>leaves the country</b> through various channels and comes back in the <b>shape of foreign investment</b>.           <ul style="list-style-type: none"> <li>➢ Round tripping concept has <b>not been defined or laid down in any laws in India</b>.</li> <li>➢ <b>A primary reason for prohibition of round tripping in India was to restrict the money routed out to tax havens for tax avoidance</b> and evasion purposes.</li> </ul> </li> </ul>
 <p><b>Ever-greening of loans</b></p>	<ul style="list-style-type: none"> <li>• RBI governor raised red flags over banks <b>adopting innovative methods for ever-greening of loans</b>.</li> <li>• <b>About Ever-greening of loans</b> <ul style="list-style-type: none"> <li>➢ A form of <b>zombie lending</b>, it is typically a <b>temporary fix</b> for a bank to avoid <b>classification of a loan as a Non- Performing asset (NPA)</b>.</li> <li>➢ Such methods include, inter alia:               <ul style="list-style-type: none"> <li>▪ <b>Bringing two lenders together</b> to evergreen each other's loans by sale and buyback of loans or debt instruments.</li> <li>▪ Good borrowers being persuaded to <b>enter into structured deals with a stressed borrower</b> to conceal the stress.</li> </ul> </li> </ul> </li> </ul>
 <p><b>Gharial (<i>Gavialis gangeticus</i>)</b></p>	<ul style="list-style-type: none"> <li>• 35 hatchlings of <b>Gharial, a crocodile species</b>, were spotted near Satkosia gorge in Mahanadi River in Odisha.</li> <li>• <b>Gharials are found majorly in Chambal River</b> (tributary of Yamuna River).           <ul style="list-style-type: none"> <li>➢ <b>IUCN status:</b> Critically Endangered</li> <li>➢ Odisha houses all three species of crocodiles- <b>Gharial, Mugger (Vulnerable) and Saltwater (Least Concern) crocodiles</b>.</li> <li>➢ <b>Major threats faced:</b> Alteration of habitat, depletion of prey base, poaching for use of body parts etc.</li> </ul> </li> </ul>



 <p><b>Great Himalayan National Park (GHNP)</b></p>	<ul style="list-style-type: none"> <li>● An Interpretation Centre has been developed in <b>Great Himalayan National Park (GHNP)</b> which will give information about the <b>flora and fauna found there.</b></li> <li>● <b>About GMNP (UNESCO World Heritage Site)</b> <ul style="list-style-type: none"> <li>➤ <b>Location:</b> In the western part of the Himalayan Mountains in the northern Indian state of Himachal Pradesh.</li> <li>➤ <b>Rivers:</b> Includes the origins of westerly flowing <b>Jiwa Nal, Sainj and Tirthan Rivers and Parvati River</b> which are all headwater tributaries to River Beas and subsequently, the Indus River.</li> <li>➤ <b>Flora and Fauna:</b> Oak, blue pine, deodar, Snow Leopard, musk Deer, Blue Sheep etc.</li> </ul> </li> </ul>
 <p><b>Babul (Acacia nilotica)</b></p>	<ul style="list-style-type: none"> <li>● As per research, Babul seed oil could be used as an environment-friendly alternative to chemicals to control farm pests.</li> <li>● <b>About Babul</b> <ul style="list-style-type: none"> <li>➤ It is a <b>perennial, evergreen tree.</b></li> <li>➤ It is <b>indigenous to Indian Sub-continent</b> as well as in <b>Tropical Africa, Burma, Sri Lanka, Saudi Arabia, Egypt and in West and East Sudan.</b></li> <li>➤ It occurs in <b>tropical and sub-tropical regions</b> of India.</li> <li>➤ In India, natural babul forests are generally found in Maharashtra, Gujarat, Andhra Pradesh, Rajasthan, Haryana and Karnataka.</li> <li>➤ <b>Use:</b> Antibacterial property, Nitrogen-fixing property etc.</li> </ul> </li> </ul>
 <p><b>Manganese</b></p>	<ul style="list-style-type: none"> <li>● <b>Manganese Ore (India) Limited has reported</b> record production of 4.02 lakh tonnes of manganese ore.</li> <li>● <b>Manganese</b> is a naturally occurring mineral. It is always <b>available in combination with iron, laterite, and other minerals.</b> <ul style="list-style-type: none"> <li>➤ <b>Manganese ores:</b> Manganite, Psilomelane, Pyrolusite, Braunitite.</li> <li>➤ <b>Deposits:</b> It occurs mainly as metamorphosed bedded sedimentary deposits associated with Gondite Series of <b>Madhya Pradesh, Maharashtra, Gujarat, and Odisha.</b></li> <li>➤ <b>Use:</b> Manganese dioxide is used for manufacturing dry cell batteries etc.</li> </ul> </li> </ul>
 <p><b>Zomi Tribe</b></p>	<ul style="list-style-type: none"> <li>● Manipuri's Zomi Tribe demanding the restoration of law and order in the state.</li> <li>● <b>Zou people or Zomi are an indigenous community</b> living along the frontier of India and Burma. <ul style="list-style-type: none"> <li>➤ They are a <b>sub-group of the Zo people (Mizo-Kuki-Chin).</b></li> <li>➤ <b>Zomi council is an apex body of Zomi tribes</b> which include Gante, Kom, Mate, Paite, Simte, Tedim Chin, Thangkhal, Zou and Vaiphei.</li> <li>➤ <b>Inhabitants:</b> Nagaland, Mizoram, Manipur and Assam.</li> </ul> </li> </ul>
 <p><b>Places in News</b></p>	<p><b>Turkey (Capital: Ankara)</b></p> <ul style="list-style-type: none"> <li>● President of Turkey was re-elected to the post of President.</li> <li>● <b>Political Boundaries</b> <ul style="list-style-type: none"> <li>➤ It lies <b>partly in Asia and partly in Europe.</b></li> <li>➤ Bounded by <b>Black Sea</b> (north), <b>Georgia and Armenia</b> (northeast), <b>Azerbaijan and Iran</b> (east), <b>Iraq and Syria</b> (southeast), <b>Mediterranean Sea and Aegean Sea</b> (southwest and west), and by <b>Greece and Bulgaria</b> (northwest).</li> <li>➤ Shares <b>maritime borders with Cyprus, Egypt, Romania, Russia, and Ukraine.</b></li> <li>➤ <b>Largest city and seaport is Istanbul.</b></li> </ul> </li> <li>● <b>Geographical features</b> <ul style="list-style-type: none"> <li>➤ <b>Major River:</b> Euphrates, Tigris and Kizilirmak.</li> <li>➤ <b>Highest Point:</b> Mount Ararat.</li> <li>➤ <b>Important Straits:</b> Bosphorus strait, Dardanallaise strait.</li> <li>➤ Turkey is a part of <b>Anatolia Plateaus.</b></li> </ul> </li> </ul> 