

IMPORTANT NEWS

President confers 37 Gallantry awards

Inside Story of the News:

- At the Defence Investiture Ceremony (Phase-1) in New Delhi on May 9, 2023, **President Smt. Droupadi Murmu presented 29 Shaurya Chakras**, including five posthumous awards, **and eight Kirti Chakras**, including five posthumous awards, to the members of the Armed Forces, Central Armed Police Forces, and State/Union Territory Police.
- President Smt. Droupadi Murmu is the Supreme Commander of the Armed Forces.
- The personnel who showed exceptional bravery, unwavering courage, and extraordinary dedication to duty received the gallantry awards.

About Gallantry awards:

- On January 26, 1950, the Government of India established the first three **gallantry awards**, the Param Vir Chakra, Maha Vir Chakra, and Vir Chakra, which were believed to be in effect as of August 15, 1947.
- Other three gallantry awards, the Ashoka Chakra Class-I, Class-II, and Class-III, were subsequently established by the Government of India on January 4, 1952, and were declared to be effective as of August 15, 1947. In January 1967, the names of these awards were changed to Ashoka Chakra, Kirti Chakra, and Shaurya Chakra, respectively.
- The announcement of these gallantry awards occurs twice a year, first on Republic Day and later on Independence Day.
- Order of precedence of these awards is:
 - the Param Vir Chakra,
 - the Ashoka Chakra,
 - the Mahavir Chakra,
 - the Kirti Chakra,
 - the Vir Chakra and
 - the Shaurya Chakra.

Piezoelectric MEMS technology sensor for underwater communications

Inside Story of the News:

- Scientists from the Defence Research and Development Organisation (DRDO) and researchers from the Indian Institute of Technology Madras have teamed up to create a cutting-edge **Piezoelectric MEMS (Micro Electro Mechanical System) technology sensor for underwater communications**.
- Defence applications will benefit from this sensor, especially in the naval forces.

- This sensor will be utilised by the DRDO's Next Generation SONAR initiative for the Indian Navy to assist innovative and modern technical advancements.
- India can produce the devices at a lower cost than foundries located elsewhere, where production costs are high and the availability of foundries is constrained, thanks to the locally developed technology.
- The development of cutting-edge piezo MEMS technology aids India in moving past the boundaries of its defence capabilities and engaging in strategic operations for crucial applications.
- "Piezoelectric MEMS technology" is required to produce high-performance thin films and turn "piezo thin film" into sophisticated, futuristic naval sensors and apparatus for underwater applications.
- One of the most crucial elements of piezo MEMS devices, piezo thin films are employed in acoustics and vibration sensing.
- IIT Madras researchers and DRDO scientists worked with many partners to develop a piezo MEMS process technology for "Thin film membrane based Piezo MEMS Acoustic sensors."
- Functionality-wise, the constructed PZT thin film-based acoustic sensor performs better than the conventional PVDF-based acoustic sensor.
- The fabrication facility has been built at IIT Madras as well as at the DRDO Industry Academia - Ramanujan Centre of Excellence.
- Due to the high pressure and corrosive properties of seawater, the most significant challenge for the Piezo MEMS process technology is the requirement for great dependability and durability in the harsh underwater environment.

Deep Ocean Mission part of government's Blue Economy initiative

Inside Story of the News:

- According to Union Minister Jitendra Singh, the **Deep Ocean Mission** is at the centre of a "**Blue Economy**" that will be crucial in developing India's overall economy in the coming years.
- Singh said, while speaking at the first-ever high-level Steering Committee Meeting of the Deep Ocean Mission, that the mission is a part of the government's Blue Economy initiative and will help India's attempts to achieve Blue Economy status.
- Technologies developed under the mission would help explore the oceans and harness non-living resources like energy, fresh water, and strategic minerals.
- The design and development of the manned submersible to carry three humans has been completed and integration is underway.
- The mining machine's design is complete and the first stage of a demonstration trial of a mining crawler on the sea bed has been successfully accomplished.
- It is anticipated that the exploration of important minerals like cobalt, nickel, copper, and manganese will pave the path for their eventual commercial utilisation.

About the Deep Ocean Mission:

- A high-level, multi-ministerial, multi-disciplinary programme called the Deep Ocean Mission seeks to improve our knowledge of the deep-sea living and non-living resources of the Indian Ocean.
- In September 2021, the Deep Ocean Mission was sanctioned, with an estimated cost of INR 4047 Cr for five years and six themes.
- The mission consists of developing technology for deep sea mining, manned submersible, and underwater robotics, ocean and climate change advisory services, technology innovations for exploration and conservation of deep sea biodiversity, deep ocean survey and exploration, energy and freshwater from the ocean, and advanced marine station for Ocean Biology.

ICMR successfully conducts trial run of delivery of blood bags by drones

Inside Story of the News:

- Indian Council of Medical Research (ICMR), Union Health Ministry successfully carried out a trial run of **drone-delivered blood bags** as part of its **iDrone initiative**, in continuance with the national mission of expanding India's drone ecosystem.
- Together with the Government Institute of Medical Sciences (GIMS), Greater Noida, Lady Hardinge Medical College (LHMC), New Delhi, and Jaypee Institute of Information Technology (JIIT), Noida, the ICMR has conducted the trial run as a ground-breaking validation study for the first time in the nation.
- In visible line of sight, 10 units of whole blood samples from GIMS and LHMC were transported on the inaugural test flight.
- While JIIT serves as the execution centre for drone sorties, LHMC and GIMS serve as the centres for providing blood bags and examination of the samples.
- The protocol development, study designing, implementation, and coordination of the project are being undertaken by scientists from ICMR-Headquarters.
- Drones are being creatively used in a variety of industries, including agriculture, defence, disaster relief, and healthcare, thanks to the vision of the Hon'ble Prime Minister to build the drone ecosystem in India.
- For researchers and drone operators, the incorporation of novel technologies like drones in various sectors has been made easier with the relaxations in the Drone Rules 2022.
- In remote areas of Manipur and Nagaland, ICMR has successfully delivered medical supplies, vaccines, and medications as a pioneer in the use of drones in healthcare.
- Blood will be delivered via drones, which will speed up domestic last-mile deliveries.
- This 'i-DRONE' was first used during COVID-19 pandemic by ICMR for distributing vaccines to unreachable areas.

MoPSW launches 'Harit Sagar' Green Port Guidelines 2023

Inside Story of the News:

- The Ministry of Ports, Shipping and Waterways has launched "**Harit Sagar, the Green Port Guidelines, to fulfil the greater objective of achieving the Zero Carbon Emission Goal.**"
- In keeping with the idea of "Working with Nature," the Harit Sagar Guidelines 2023 foresee ecosystem dynamics in port development, operation, and maintenance while minimising influence on biotic components of the harbour ecosystem.
- It places a focus on use of Clean / Green energy in Port operation, developing Port capabilities for storage, handling and bunkering Greener Fuels viz. Green Hydrogen, Green Ammonia, Green Methanol / Ethanol etc.
- These guidelines offer a framework for the Major Ports to create a thorough action plan for achieving targeted results, such as a quantified decrease in carbon emissions over specified timelines, through targeted implementation and close monitoring of Green Initiatives, and to achieve Sustainable Developmental Goals (SDG).
- The guidelines' main goals are to reduce trash through the four R's: Reduce, Reuse, Repurpose, and Recycle in order to achieve zero waste discharge from port operations and to encourage monitoring based on Environmental Performance Indicators.
- Additionally, it includes provisions for adopting the global Green Reporting Initiative (GRI) standard and covers parts of the National Green Hydrogen Mission related to ports, development of green hydrogen facility, LNG bunkering, offshore wind energy, etc.
- The requirement for renewable energy is already being met by the four major ports of Deendayal Port, Visakhapatnam Port, New Mangalore Port, and VOC Port. The ports will now be able to assess themselves based on environmental indicators to determine their capacity in terms of environmental factors.

About awards conferred to major ports during FY 2022–2023:

- For their exceptional performance on a few operational and financial parameters during FY 2022–2023, the major ports were conferred awards.
- Ports with the greatest incremental improvements were also recognised, and they were graded according to how well they performed overall in 2022–2023.
- The goal is to inspire the major ports to perform better and better throughout the course of the upcoming year by creating fair and healthy competition among them.
- The Deendayal Port in Kandla received the prize for the **best Absolute Performance for the year 2022–2023** for handling the highest cargo of 137.56 MMT.
- While Paradip Port won a performance shield on **Ship Berth Day Output**, Jawaharlal Nehru Port was recognised for reaching a **significant milestone in turnaround time**.
- While Cochin Port (a non-container port) obtained performance shield in **turnaround time**, Kamarajar Port was recognised in **pre-berthing detention time**.
- The Paradip Port won the prize for the **best incremental performance after recording the highest cargo growth rate** of 16.56% last year. The **best Ship Berth Day Output award in the**

- **incremental category** went to Mormugao Port, and the **best pre-berthing detention time** award went to Kamarajar Port.
- According to **overall annual performance measured by cargo handling, average turnaround time, Ship Berth Day Output, idle time at berth, operating ratio, and pre-berthing detention**, Paradip Port was named the best port.

CBIC rolls out Automated Return Scrutiny Module for GST returns

Inside Story of the News:

- The Central Board of Indirect Taxes and Customs (CBIC) was recently evaluated for its performance, and Union Minister for Finance and Corporate Affairs Smt. Nirmala Sitharaman gave instructions to launch an **Automated Return Scrutiny Module for GST returns** as soon as possible.
- CBIC recently released the Automated Return Scrutiny Module for GST returns in the ACES-GST backend application for Central Tax Officers in order to apply this non-intrusive method of compliance verification.
- The officers will be able to scrutinise the GST returns of Centre Administered Taxpayers chosen based on data analytics and system-identified risks thanks to this module.
- In the module, discrepancies on account of risks associated with a return are displayed to the tax officers.
- The module displays discrepancies to the tax officials due to risks linked with a return.
- Through the GSTN Common Portal, tax officers are given a workflow for communicating with taxpayers about discrepancies discovered under FORM ASMT-10, receipt of taxpayer's response in FORM ASMT-11, and taking action in the form of either issuing an order accepting the reply in FORM ASMT-12, issuing a show-cause notice, or starting an audit or investigation.

Ministry of Power and Ministry of Environment to develop Carbon Credit Trading Scheme for Decarbonisation

Inside Story of the News:

- Ministry of Power and Ministry of Environment will develop **Carbon Credit Trading Scheme for Decarbonisation**.
- In order to decarbonize the Indian economy, the government aims to create the Indian Carbon Market and price greenhouse gas emissions through the trading of **Carbon Credit Certificates**.
- The Carbon Credit Trading Scheme is being developed for this purpose by the Bureau of Energy Efficiency, Ministry of Power, and the Environment Ministry.
- Accredited Energy Auditors, Carbon/Energy Verifiers, and Sector Experts were among the attendees in a recent one-day stakeholder consultation that was held in New Delhi.
- The Indian Carbon Market will make it possible to establish a competitive market that can incentivize climate players to use affordable alternatives. It may serve as a means of securing a

sizable percentage of the investments the Indian economy needs to make the transition to low-carbon pathways.

- With its ambitious Nationally Determined Contributions, India has been in the forefront of the fight against climate change. Indian Carbon Market will assist in achieving the NDC objective of decreasing Emissions Intensity of the GDP by 45 percent by 2030 compared to 2005 Levels by hastening the transition to a low carbon economy.

Rare 'Alligator Gar' Fish found in Srinagar's Dal Lake

Inside Story of the News:

- During the continuing cleaning of the renowned **Dal Lake in Srinagar**, the Jammu and Kashmir Lake Conservation and Management Authority (LCMA) discovered **a rare species of fish known as "Alligator Gar" for the first time**.
- Alligator Gar fish is normally found in North America and some parts of India like Bhopal upper lake and Kerala backwaters.
- Being a predator fish and a carnivore, it is detrimental to native species of Dal Lake.
- The ray-finned euryhaline fish is recognisable by its crocodile-like head and razor-sharp teeth.
- It will be properly investigated to learn how it arrived and whether it actually poses a threat to Kashmir's native fish species.
- In order to search for any additional Alligator Gar fish in the lake, the LCMA has now partnered with the Department of Fisheries and Fisheries division of Sher-e-Kashmir University of Agricultural Sciences and Technology (SKUAST).
- The Biological Diversity Act 2002 prohibits the presence of any kind of invasive fish species that can be hazardous to natural fish fauna.

Indian Railways' One Station One Product scheme covers 728 railway stations with 785 OSOP outlets

Inside Story of the News:

- With more than 700 **One Station One Product (OSOP)** outlets, the Ministry of Railways has covered 728 railway stations across the nation.
- The action intends to promote 'Vocal for Local' vision and to provide a market to sell local or indigenous products.
- This will foster the region's economic development and open up work chances for the society's marginalised sections.
- On March 25, 2022, the OSOP scheme's pilot phase began.
- **785 outlets have been established as of May 1st, 2023, in 728 stations across 21 states and 3 Union Territories (UTs)**. The National Design Institute created the OSOP stalls with uniformity in mind.

About OSOP scheme:

- The 'One Station One Product' is specific to the concerned place where the outlets have been opened.
- It includes artefacts created by indigenous tribes, handlooms by local weavers, handicrafts like well-known wood carving, chikankari and zari-zardozi clothing work, and spices, tea, and other locally produced processed/semi-processed foods.
- Under this scheme, the products include:
 - Food items (Seasonal or Processed or semi processed foods)
 - Handicrafts
 - Artefacts
 - Textiles
 - Handlooms
 - Traditional Garments
- In the country's North Eastern region, OSOP stalls sell a variety of Assamese Pitha, traditional Rajbongshi attire, Jhapi, local textiles, and jute products (caps, gamocha, and dolls).
- In Jammu and Kashmir, Kashmiri Girida, Kashmiri Kahwa, and dry fruits are well-known.
- In South India, cashew products, spices, Chinnalapatti handloom sarees are catching the attention of passengers.
- Embroidery and Zari Zardozi, Coconut Halva, locally grown fruits, processed meals, and Bandhani are well-known in the western part of the country.

Centre finalizes comprehensive 'Model Prisons Act, 2023'

Inside Story of the News:

- Union Home Ministry recently said that comprehensive '**Model Prisons Act, 2023**' has been finalized under the leadership of Prime Minister Narendra Modi and guidance of Home Minister Amit Shah.
- The government had earlier decided that the colonial-era outdated Prison Act would be reviewed and updated in accordance with current demands and correctional ideology.
- The Model Prison Act, 2023 may serve as a guiding document for the States, and for adoption in their jurisdiction.
- The Bureau of Police Research and Development was given the job of revising the Prisons Act, 1894, by the Home Ministry.
- After extensive consultations with representatives from State Prison authorities, correctional experts, and others, the Bureau drafted the report.
- It has been prepared with the objective of holistically providing guidance and addressing the gaps in the existing Prisons Act.
- Some salient features of the new Model Prisons Act include:

- provision for security assessment and segregation of prisoners, and individual sentence planning

- grievance redressal, prison development board, attitudinal change towards prisoners, provision of separate accommodation for women prisoners, and transgender
- provision for use of technology in prison administration with a view to bring transparency in prison administration
- The new Act will focus on prisoner skill development and vocational training in order to facilitate their reintegration into society.